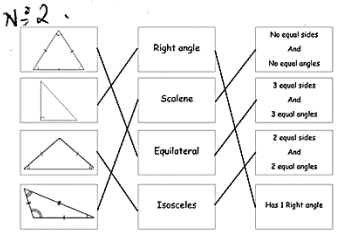
Answers : Above all in Mathematics Grade 6

Maths - G6.

Pg1 1. Isosceles 2. right-angled 3. Equilateral
4. Scalene 5. Isosceles 6. right-angled
7. right-angled 8. Isosceles 9. Isoseeles

Pg2. N:2.



Pg3 (a) Triangle (3) (b) 4: Square.
(c) rectangle : 4 (d) 4: kite (e) 4: Parallelogram
(f) 4: Trapezium (g) 5: pentagon (h) 6: hexagon
(i) 4: Trapezium.

Pg4 N:4.
1 (a) cube. (b) 6 (c) 12 (d) 8.
2 (a) ~~Triangular prism~~ ~~(b) 5~~
2 (a) Cuboid (b) 6 (c) 12 (d) 8.
3 (a) Square-base Pyramid (b) 5 (c) 8 (d) 5
4 (a) Cylinder (b) 2 (c) 0 (d) 0.
5 (a) Cone (b) 1 (c) 0 (d) 1.
6 (a) Triangular prism (b) 5 (c) 9 (d) 6.

Pg5 Ex1
(a) $8327 = (8\times1000) + (3\times100) + (2\times10) + (7\times1)$
(b) $56749 = (5\times10000) + (6\times1000) + (7\times100) + (4\times10) + (9\times1)$.
(c) $78943 = (7\times10000) + (8\times1000) + (9\times100) + (4\times10) + (3\times1)$.
(d) $213496 = (2\times100000) + (1\times10000) + (3\times1000) + (4\times100) + (9\times10) + (6\times1)$
(e) $476328 = (4\times100000) + (7\times10000) + (6\times1000) + (3\times100) + (2\times10) + (8\times1)$
(f) $5708 = (5\times1000) + (7\times100) + (8\times1)$.
(g) $310407 = (3\times100000) + (4\times100) + (7\times1) + (1\times10000)$

Ex2 (a) 974324 (b) 156458
(c) 835792 (d) 47059 (e) 240706
(f) 705089 (g) 525647 (h) 470862

Pg6 Ex3
(a) eighteen (b) Ninety Six.
(c) 123 = one hundred and twenty three.
(d) 708 = seven hundred and eight.
(e) 1346 = one thousand three hundred and forty six.
(f) 5672 = Five thousand six hundred and seventy two.
(g) 67455 = Sixty seven thousand four hundred and fifty five.
(h) 46987 = Forty six thousand nine hundred and eighty seven.
(i) 521450 : Five hundred and twenty one thousand four hundred and fifty.
(j) 908768 : Nine hundred and eight thousand. seven hundred and sixty eight.
(k) 854219 : Eight hundred and fifty four thousand two hundred and nineteen.

Pg6 Ex4
(a) 69 (b) 80 (c) 907 (d) 3611 ~~5013~~.
(e) 5013 (f) 23846 (g) 853219 (h) 199026

Pg7 Ex1
(a) 400 (b) 300000 (c) 70000.
(d) 6 (e) 2000 (f) 80.

Pg7 Ex2
(a) 2. (b) fifty or 50 (c) hundred.
(d) 1 (e) Unit.

Pg8 Ex3
(a) 4 (b) 6 (c) fifty thousand or 50000
(d) hundred (e) 8 (f) Unit.

Pg8 Ex4
(a) 986531. (b) 135689.

Pg8 Ex5
(a) 764320 (b) 023467

Pg8 Ex6
(a) 219, 293, 912, 913.
(b) 2674, 4747, 7147, 8617.
(c) 6677, 6767, 7676, 7766.
(d) 16416, 16461, 16614, 16641.

Pg 8 Ex 7.

(a) 873, 783, 387, 378.

(b) 5423, 4532, 4325, 3452.

(c) 15122, 15112, 14201, 12420, 12115.

(d) 78731, 76391, 76319, 76139.

Pg 9 Ex 1

(a) 6847 (b) 3906 (c) 7497 (d) 8292

Ex 2

(a) 95 191 (b) 65 902.

Ex 3 (a) (1574 + 3100) = 4674.

(b) April = 2963.

Total = (2365 + 2963) = 5328.

(c) Shop B = (3279 + 1780) = 5059.

Both = (5059 + 3279) = 8338.

(d) In all = (16700 + 25465 + 35950)

= Rs 78 115.

Pg 10 Ex 1

(a) 5851 (b) 4658 (c) 4061 (d) 2458.

Ex 2 (a) 9477 (b) 26696.

Ex 3 (a) (2318 - 1579) = 739.

(b) (64470 - 12590) = 51880.

(c) (9000 - 4825) = 4175.

(d) (i) (1875 - 990) = 885.

(ii) (1096 - 990) = 106.

Pg 11.

1) (a) (12545 - 10545) = 2000.

(b) (12545 + 10545) = 23090

2 (a) Carlos = (21540 + 5300) = 26840.

Emmy = (26840 - 2950) = 23890.

(b) In all = (21540 + 26840 + 23890)

= 72270.

3) Shop B = (4985 + 1300) = 6285

Shop C = (6285 - 3250) = 3035

4) gives = (375 + 985) = 1360

left = (3976 - 1360) = 2616.

5) (a) House = (6000 - 1096) = 4904.

(b) Altogether = (6000 + 4904) = 10904.

6 (a) (12575 - 700) = 11875.

(b) (13500 - 12575) = 925

Pg 12 Ex 1.

(a) 31902 (b) 16120 (c) 54252

(d) 33156 (e) 52835 (f) 45445

Pg 12 Ex 2

(a) 32460 (b) 134360 (c) 120540

(d) 50360 (e) 87850 (f) 195360

(g) 828900 (h) 783500 (i) 789 000

Pg 13 Ex 3

(a) 1350 (b) 28767 (c) 2646

(d) 23968 (e) 29748 (f) 8664.

Pg 13 Ex 4

1) (15x8) = 120 2) (125x16) = 2000

3) (26x36) = 936.

4) (26699x3) = 80097

5) (55x3) = 165.

6) (650x5) = 3250.

7) 6 weeks = (6x7) = 42 days.

(1745 x 42) = 73290.

8) (599x5) = 2995

(299x4) = 1196.

Total = 4191

Pg 15 Ex1

(a) 120 (b) 192 (c) 106.
(d) 103 (e) 122 (f) 4223.
(g) 125004 (h) 3382.

Pg 16 Ex1

(a) 76 (b) 95 (c) 65.
(d) 31 (e) 15 (f) 160.

Pg 17 Ex3

(a) 344 (b) 401 (c) 72.
(d) 551 (e) 806 (f) 2331.

Pg 18 Ex4

(a) 397 R1 (b) 345 R9 (c) 221 R12.
(d) 1029 R7 (e) 695 R2 (f) 1906 R 30

Pg 18 Ex5

1) $(360 \div 6) = 60$.

(2) 16 Trays
left = 24 eggs.

$$36 \overline{)600} \quad 16$$
$$36$$
$$240$$
$$216$$
$$24$$

Pg 19 N°1

$(3600 - 320) = 3280$.
Cynthia $= \left(\frac{3280}{2}\right) = 1640$.
Both $= (3600 + 1640) = 5240$.

2) Eight friends $= (56 \times 8) = 448$.
left $= (898 - 448) = 450$.
Each Album $= \left(\frac{450}{3}\right) = 150$

3) 4 brothers $= (4 \times 45) = 180$.
left $= 272$.
At first $= (272 + 180) = 452$.

4) 1 book + 4 pens = 120.
1 book + 2 pens = 100
2 pens = 20
1 book = $(100 - 20) = 80$

Pg 19 Ex5

left = 1350.
1 child = $(1350 - 400) = 950$
6 children = $(950 \times 6) = 5700$.
Bonus = $(2000 + 1350 + 5700) = 9050$

Ex6

1 Package = 400.
(a) 25 Packages = $(400 \times 25) = 10000$.
(b) 2000 pupils = $(2000 \times 7) = 14000$.
More lollipops = $(14000 - 10000) = 4000$
N° of Package = $\frac{4000}{400} = 10$

Pg20

1) Even : 34670, 321056, 1890, 2300
2) odd: 34 507, 56797, 40875, 1671
3) 1501, 1503, 1505, 1507, 1509
1511, 1513, 1515, 1517, 1519.
4) 12312, 12314, 12316, 12318
12320, 12322, 12324.
5 (d) even. (e) even.
6 (d) even (e) odd

Pg21 Ex1

$(3478 \div 2) = 1739$.
Answer = 1738, 1740.
2) $(5644 \div 2) = 2847$.
Answer = 2846, 2848.
3) $(3276 \div 2) = 1638$
Answer = 1637, 1639.
4) $(1278 \div 2) = 639$.
Answer = 637, 639.

Pg22 Ex1

1) 144 2) $(25 \times 25) = 625$.
3) 4 4) 81
5) 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 19

3

Pg 23 N°1

(a) 11, 13, 17, 19 (b) 12, 14, 15, 16, 18, 20.

N°2

(a) 23, 29 (b) 21, 22, 24, 25, 26, 27, 28, 30

3) 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47

4) C 5) B.

6) (a) 1, 3, 9, 11, 25, 29, 35, 47, 49.

(b) 4, 10, 9, 25, 28, 35, 49, 50.

(c) 1.

(d) 9.

Pg 24 N°1

(a) 8 = 1, 2, 4, 8.

(b) 16 = 1, 2, 4, 8, 16

(c) 30 = 1, 2, 3, 5, 6, 10, 15, 30.

(d) 50 = 1, 2, 5, 10, 25, 50.

(e) 36 = 1, 2, 3, 4, 6, 9, 12, 18, 36.

(f) 90 = 1, 2, 3, 5, 9, 10, 18, 30, 45, 90.

Pg 25 N°2.

(a) $32 = 2\times2\times2\times2\times2$.
P.F = 2.

(b) $72 = 2\times2\times2\times3\times3$.
P.F = 2 and 3.

(c) $45 = 2\times3\times3\times5$.
P.F = 2, 3 and 5.

(d) $144 = 2\times2\times2\times2\times3\times3$
P.F = 2 and 3.

(e) $200 = 2\times2\times2\times5\times5$
P.F = 2 and 5.

(f) $122 = 2\times61$.
P.F = 2 and 61.

2 | 72
2 | 36
2 | 18
3 | 9
3 | 3
1 1

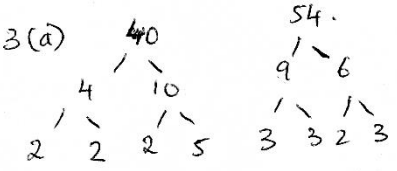
2 | 32
2 | 16
2 | 8
2 | 4
2 | 2
1

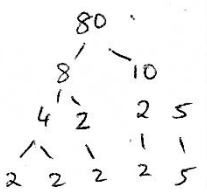
2 | 200
2 | 100
2 | 50
5 | 25
1 | 5

2 | 90
3 | 45
3 | 15
5 | 5
1

2 | 122
61

3(a)





Pg 26 Ex4

(a) $12 = 2\times2\times3$.
$16 = 2\times2\times2\times2$.
H.C.F = 2×2
= 4

(b) $21 = 3\times7$
$56 = 7\times2\times2\times2$
H.C.F = 7

(c) $36 = 2\times2\times3\times3$.
$120 = 2\times2\times3\times2\times5$
H.C.F = 2×2×3
= 12.

(d) $48 = 2\times2\times2\times2\times3$
$102 = 2\times17\times3$
H.C.F = 2×3
= 6.

(e) $32 = 2\times2\times2\times2\times2$.
$40 = 2\times2\times2\times5$.
$56 = 2\times2\times2\times7$.
H.C.F = 2×2×2 = 8.

(f) $48 = 2\times2\times2\times2\times3$.
$60 = 2\times2\times3\times5$
$72 = 2\times2\times2\times3\times3$.
H.C.F = 2×2×3
= 12.

Pg 27 Ex5

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

Ex6

(a) 6, 36, 48, 56, 60, 86, 102, 144, 150

(b) 6, 36, 48, 60, 99, 34, 144, 150.

(c) 25, 60, 150.

(d) 60, 150.

Pg 28 Ex7

(a)

6 | 12, 18
2 | 2, 3.
3 | 1, 3
1, 1

L.C.M = 6×2×3
= 36.

(b)

3 | 9, 15
3 | 3, 5
5 | 1, 5
1, 1

L.C.M = 3×3×5
= 45.

(c)

12 | 24, 36
2 | 2, 3.
3 | 1, 3
1, 1

L.C.M = 12×2×3
= 72.

(d)

5 | 15, 20
3 | 3, 4.
4 | 1, 4
1, 1

L.C.M = 5×3×4
= 60.

4

Pg 29 N° 7e.

(e)

4	32, 40
2	8, 10
4	4, 5
5	1, 5
	1, 1

L.C.M = 4 × 2 × 4 × 5
= 160.

(f)

5	45, 60, 90
3	9, 12, 18
3	3, 4, 6
2	1, 4, 2
2	1, 2, 1
	1, 1, 1

L.C.M = 5 × 3 × 3 × 2 × 2
= 180.

8) L.C.M = (3 × 4) = 12.
Time = (1000 + 12) = 1012

9) N° of Chairs = (12 × 3 × 4)
= 144.

12	36, 48
3	3, 4
4	1, 4
	1, 1

10) L.C.M = (3 × 5 × 2 × 3)
= 90 min
= 1 hour 30 min.

3	30, 45
5	10, 15
2	2, 3
3	1, 3
	1, 1

(a) 2nd time = (900 + 130)
= 1030.

(b) (90 × 6) = 540 min
= 540/60 = 9 hours.

0900 + 9h00 = 1800 ←

Pg 30 Ex 1

(a) ~~6/9~~ ~~3/9~~ 6/9, 3/9 (b) 5/8, 3/8 (c) 3/8, 5/8.

(d) 3/4, 1/4 (e) 4/8, 4/8 (f) 10/16, 6/16.

Pg 32 Ex 2

9/12 - nine twelfths.
6/8 - six eighths.
1/2 - one half.
3/5 - three fifths.
3/11 - three elevenths.
1/3 - one third.
5/9 - five ninths.
8/10 - eight tenths.

Ex 3

(a) 1/2 - one half. (b) 2/3 - two thirds.
(c) 3/4 - three quarters (d) 1/5 = one fifth.
(e) 6/7 - six sevenths (f) 5/8 = five eighths.
(g) 5/6 - five sixths (h) 9/10 = nine tenth.

Pg 32 Ex 4

(a) 2/5, 5/5 or 1.
(b) 1/7, 4/7, 6/7.
(c) 0, 3/8, 6/8, 7/8.
(d) 4/9, 6/9, 8/9.
(e) 3/12, 4/12, 9/12

Pg 33 Ex 5

(a) 2 (b) 2 (c) 10 (d) 12.
(e) 16 (f) 28 (g) 48 (h) 6.
(i) 10 (j) 2 (k) 16. (l) 5.

Pg 34 Ex 6

(a) 5/10 = 1/2 (b) 6/14 = 3/7 (c) 6/9 = 2/3.
(d) 4/12 = 1/3 (e) 7/28 = 1/4 (f) 20/24 = 5/6.
(g) 12/32 = 3/8 (h) 18/16 = 9/8 (i) 9/27 = 1/3.

Pg 35 Ex 7.

(a) 7/5 (b) 5/4 (c) 10/7 (d) 13/5.
(e) 20/9 (f) 10/3 (g) 31/8 (h) 27/10 (i) 47/11

Pg 35 Ex 8

(a) 7/5 = 1 2/5 (b) 9/4 = 2 1/4 (c) 15/7 = 2 1/7
(d) 20/3 = 6 2/3 (e) 35/4 = 8 3/4 (f) 23/5 = 4 3/5

Pg 36 Ex 9.

(a) 1/9, 4/9, 7/9, 8/9 (b) 3/13, 5/13, 6/13, 12/13

Pg 36,37 Ex9

(c) $\frac{7}{12}$, $\frac{1}{4}\times\frac{3}{3}=\frac{3}{12}$, $\frac{5}{6}\times\frac{2}{2}=\frac{10}{12}$, $\frac{1}{3}\times\frac{4}{4}=\frac{4}{12}$

$\frac{3}{12}, \frac{4}{12}, \frac{7}{12}, \frac{10}{12} = \frac{1}{4}, \frac{1}{3}, \frac{7}{12}, \frac{5}{6}$.

(d) $\frac{5}{18}$, $\frac{1}{2}\times\frac{9}{9}=\frac{9}{18}$, $\frac{7}{9}\times\frac{2}{2}=\frac{14}{18}$, $\frac{1}{6}\times\frac{3}{3}=\frac{3}{18}$

$\frac{3}{18}, \frac{5}{18}, \frac{9}{18}, \frac{14}{18} = \frac{1}{6}, \frac{5}{18}, \frac{1}{2}, \frac{7}{9}$.

(e) $\frac{3}{10}\times\frac{2}{2}=\frac{6}{20}$, $\frac{2}{5}\times\frac{4}{4}=\frac{8}{20}$, $\frac{9}{20}$, $\frac{1}{2}\times\frac{10}{10}=\frac{10}{20}$

$\frac{6}{20}, \frac{8}{20}, \frac{9}{20}, \frac{10}{20} = \frac{3}{10}, \frac{2}{5}, \frac{9}{20}, \frac{1}{2}$.

(f) $\frac{1}{2}\times\frac{20}{20}=\frac{20}{40}$, $\frac{3}{4}\times\frac{10}{10}=\frac{30}{40}$, $\frac{2}{5}\times\frac{8}{8}=\frac{16}{40}$, $\frac{5}{8}\times\frac{5}{5}=\frac{25}{40}$

$\frac{16}{40}, \frac{20}{40}, \frac{25}{40}, \frac{30}{40} = \frac{2}{5}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$.

10) (a) $\frac{9}{11}, \frac{5}{11}, \frac{4}{11}, \frac{1}{11}$.

(b) $\frac{1}{4}\times\frac{5}{5}=\frac{5}{20}$, $\frac{1}{2}\times\frac{10}{10}=\frac{10}{20}$, $\frac{3}{5}\times\frac{4}{4}=\frac{12}{20}$, $\frac{7}{10}\times\frac{2}{2}=\frac{14}{20}$

$\frac{14}{20}, \frac{12}{20}, \frac{10}{20}, \frac{5}{20} = \frac{7}{10}, \frac{3}{5}, \frac{1}{2}, \frac{1}{4}$.

(c) $\frac{1}{6}\times\frac{6}{6}=\frac{6}{36}$, $\frac{4}{9}\times\frac{4}{4}=\frac{16}{36}$, $\frac{5}{12}\times\frac{3}{3}=\frac{15}{36}$, $\frac{1}{3}\times\frac{12}{12}=\frac{12}{36}$

$\frac{16}{36}, \frac{15}{36}, \frac{12}{36}, \frac{6}{36} = \frac{4}{9}, \frac{5}{12}, \frac{1}{3}, \frac{1}{6}$.

(d) $\frac{3}{5}\times\frac{6}{6}=\frac{18}{30}$, $\frac{5}{6}\times\frac{5}{5}=\frac{25}{30}$, $\frac{2}{3}\times\frac{10}{10}=\frac{20}{30}$, $\frac{7}{15}\times\frac{2}{2}=\frac{14}{30}$

$\frac{25}{30}, \frac{20}{30}, \frac{18}{30}, \frac{14}{30} = \frac{5}{6}, \frac{2}{3}, \frac{3}{5}, \frac{7}{15}$

Pg 38 Ex11

(a) $\frac{11}{13}$ (b) $\frac{10}{11}$ (c) $\frac{11}{20}$.

Pg 38 Ex12

(a) $\frac{3}{5}\times\frac{2}{2} = \frac{6}{10}+\frac{1}{10} = \frac{7}{10}$.

(b) $\frac{4}{5}\times\frac{4}{4} + \frac{3}{20} = \frac{16}{20}+\frac{3}{20} = \frac{19}{20}$.

(c) $\frac{7}{12} + \frac{3}{4}\times\frac{3}{3} = \frac{7}{12}+\frac{9}{12} = \frac{16}{12}$.

(d) $\frac{5}{8} + \frac{1}{4}\times\frac{2}{2} = \frac{5}{8}+\frac{2}{8} = \frac{7}{8}$.

(e) $\frac{1}{2}\times\frac{3}{3} + \frac{2}{3}\times\frac{2}{2} = \frac{3}{6}+\frac{4}{6} = \frac{7}{6}$.

(f) $\frac{1}{3}\times\frac{5}{5} + \frac{3}{5}\times\frac{3}{3} = \frac{5}{15}+\frac{9}{15} = \frac{14}{15}$.

Pg 39 Ex13

(a) $\frac{4}{8}$ (b) $\frac{5}{15}$

(c) $\frac{2}{5}\times\frac{3}{3} - \frac{4}{15} = \frac{6}{15}-\frac{4}{15} = \frac{2}{15}$.

(d) $\frac{3}{7}\times\frac{2}{2} - \frac{5}{14} = \frac{6}{14}-\frac{5}{14} = \frac{1}{14}$.

(e) $\frac{11}{18} - \frac{1}{6}\times\frac{3}{3} = \frac{11}{18}-\frac{3}{18} = \frac{8}{18}$.

(f) $\frac{4}{5}\times\frac{3}{3} - \frac{1}{3}\times\frac{5}{5} = \frac{12}{15}-\frac{5}{15} = \frac{7}{15}$

Pg 40 Ex14

(a) $3-\frac{2}{5} = 2\frac{5}{5}-\frac{2}{5} = 2\frac{3}{5}$

(b) $6-\frac{4}{7} = 5\frac{7}{7}-\frac{4}{7} = 5\frac{3}{7}$.

(c) $10-\frac{3}{4} = 9\frac{4}{4}-\frac{3}{4} = 9\frac{1}{4}$.

(d) $1-\frac{7}{8} = \frac{8}{8}-\frac{7}{8} = \frac{1}{8}$.

Pg 40 Ex15

(a) $9\frac{9}{11}$.

(b) $6\frac{2}{3}\times\frac{3}{3} + 1\frac{1}{9} = 6\frac{6}{9}+1\frac{1}{9} = 7\frac{7}{9}$.

(c) $3\frac{1}{4}\times\frac{2}{2} + 2\frac{3}{8} = 3\frac{2}{8}+2\frac{3}{8} = 5\frac{5}{8}$.

(d) $1\frac{5}{12} + 1\frac{1}{6}\times\frac{2}{2} = 1\frac{5}{12}+1\frac{2}{12} = 2\frac{7}{12}$

(e) $3\frac{3}{10} + 2\frac{2}{5}\times\frac{2}{2} = 3\frac{3}{10}+2\frac{4}{10} = 5\frac{7}{10}$.

(f) $2\frac{1}{7}\times\frac{5}{5} + 3\frac{3}{5}\times\frac{7}{7} = 2\frac{5}{35}+3\frac{21}{35} = 5\frac{26}{35}$

Pg 41 Ex16

(a) $1\frac{5}{9}$.

(b) $6\frac{2}{3}\times3 - 1\frac{1}{9} = 6\frac{6}{9} - 1\frac{1}{9} = 5\frac{5}{9}$.

(c) $3\frac{3}{4}\times2 - 2\frac{3}{8} = 3\frac{6}{8} - 2\frac{3}{8} = 1\frac{3}{8}$.

(d) $4\frac{5}{16} - 1\frac{1}{4}\times4 = 4\frac{5}{16} - 1\frac{4}{16} = 3\frac{1}{16}$.

(e) $3\frac{2}{3}\times4 - 2\frac{1}{4}\times3 = 3\frac{8}{12} - 2\frac{3}{12} = 1\frac{5}{12}$.

(f) $2\frac{5}{9}\times5 - 2\frac{1}{5}\times9 = 2\frac{25}{45} - 1\frac{9}{45} = 1\frac{16}{45}$

Pg 42 Ex17

(a) $3\frac{1}{5} - 1\frac{4}{5} = 2\frac{1}{5} - \frac{3}{5} = 1\frac{5}{5} + \frac{1}{5} - \frac{4}{5}$
$= 1\frac{2}{5}$

(b) $3\frac{5}{9} - \frac{8}{9} = 2\frac{9}{9} + \frac{5}{9} - \frac{8}{9} = 2\frac{6}{9}$

(c) $3\frac{1}{4} - 2\frac{7}{8} = 1\frac{1\times2}{4\times2} - \frac{7}{8} = 1\frac{2}{8} - \frac{7}{8}$.
$= \frac{8}{8} + \frac{2}{8} - \frac{7}{8}$
$= \frac{3}{8}$.

(d) $4\frac{2}{7} - 3\frac{4}{5} = 1\frac{2\times5}{7\times5} - \frac{4\times7}{5\times7} = 1\frac{10}{35} - \frac{28}{35}$
$= \frac{35}{35} + \frac{10}{35} - \frac{28}{35}$
$= \frac{17}{35}$

Pg 42 Ex18

(a) $\frac{1}{4}\times12 = 3$ (b) $\frac{2}{3}\times30^{10} = 20$.

(c) $\frac{5}{7}\times21^{3} = 15$ (d) $\frac{4}{5}\times20^{4} = 16$.

(e) $\frac{3}{27}\times2 = 6$ (f) $14^{2}\times\frac{1}{7} = 2$.

(g) $\frac{10}{50}\times4 = 40$ (h) $48^{6}\times\frac{5}{8} = 30$

Pg 43 Ex19

(a) $\frac{2}{4}\times\frac{5}{9_3} = \frac{5}{12}$ (b) $\frac{1}{3}\times\frac{4}{13} = \frac{4}{13}$.

(c) $\frac{2}{3}\times\frac{6^{2}}{7} = \frac{2}{1} = 2$. (d) $\frac{8}{4_3}\times\frac{15^{5}}{16_2} = \frac{5}{6}$.

Pg 44 Ex20

(a) $\frac{1}{4}\times1\frac{3}{5} = \frac{1}{4}\times\frac{8^{2}}{5} = \frac{2}{5}$.

(b) $\frac{2}{5}\times2\frac{1}{7} = \frac{2}{5}\times\frac{15^{3}}{7} = \frac{6}{7}$.

(c) $1\frac{1}{4}\times\frac{2}{3} = \frac{5}{4_2}\times\frac{2}{3} = \frac{5}{6}$.

(d) $2\frac{1}{5}\times\frac{10}{11} = \frac{11}{5}\times\frac{10^{2}}{11} = \frac{2}{1} = 2$.

(e) $2\frac{1}{4}\times1\frac{1}{3} = \frac{9^{3}}{4}\times\frac{4}{3} = \frac{3}{1} = 3$.

(f) $3\frac{1}{3}\times1\frac{2}{5} = \frac{10^{2}}{3}\times\frac{7}{5} = \frac{14}{3}$.

(g) $1\frac{3}{12}\times2\frac{2}{3} = \frac{15^{5}}{12_1}\times\frac{8^{2}}{3} = \frac{10}{3}$.

(h) $1\frac{5}{16}\times1\frac{1}{7} = \frac{21^{3}}{16_2}\times\frac{8}{7} = \frac{3}{2}$.

Pg 45 Ex21

(a) $\frac{3}{2}$ (b) $\frac{7}{5}$ (c) $\frac{1}{6}$.

(d) $1\frac{1}{4} = \frac{5}{4} = \frac{4}{5}$ (e) $2\frac{2}{5} = \frac{12}{5} = \frac{5}{12}$ (f) $3\frac{1}{7} = \frac{22}{7} = \frac{7}{22}$

Pg 45 Ex22.

(a) $\frac{1}{3}\div\frac{7}{9} = \frac{1}{3}\times\frac{9^{3}}{7} = \frac{3}{7}$.

(b) $\frac{4}{5}\div\frac{3}{10} = \frac{4}{5_1}\times\frac{10^{2}}{3} = \frac{8}{3}$.

(c) $\frac{4}{3}\div\frac{20}{9} = \frac{4}{3}\times\frac{9^{3}}{20_5} = \frac{3}{5}$.

(d) $\frac{8}{25}\div2\frac{4}{5} = \frac{8}{25}\div\frac{14}{5} = \frac{8^{4}}{25_5}\times\frac{8^{1}}{14_7} = \frac{4}{35}$

(e) $\frac{7}{10}\div\frac{7}{2} = \frac{7}{10_5}\times\frac{2}{7} = \frac{1}{5}$

7

(f) $4\frac{1}{8} \div \frac{7}{10} = \frac{21}{5} \div \frac{7}{10} = \frac{3}{\cancel{21}_{5}} \times \frac{\cancel{10}^{2}}{\cancel{7}_{1}} = \frac{6}{1} = 6.$

(g) $5\frac{1}{3} \div 1\frac{3}{5} = \frac{16}{3} \div \frac{8}{5} = \frac{\cancel{16}^{2}}{3} \times \frac{5}{\cancel{8}} = \frac{10}{3}.$

(h) $5\frac{1}{5} \div 2\frac{1}{2} = \frac{26}{5} \div \frac{5}{2} = \frac{26}{5} \times \frac{2}{5} = \frac{52}{25}$

(i) $4\frac{2}{3} \div 2\frac{2}{6} = \frac{14}{3} \div \frac{14}{6} = \frac{\cancel{14}}{\cancel{3}} \times \frac{\cancel{6}^{2}}{\cancel{14}} = \frac{2}{1} = 2$

(j) $1\frac{2}{5} \div 1\frac{1}{10} = \frac{7}{5} \div \frac{11}{10} = \frac{7}{\cancel{5}} \times \frac{\cancel{10}^{2}}{11} = \frac{14}{11}$

(k) $\frac{2}{3} \div \frac{12}{1} = \frac{\cancel{2}}{3} \times \frac{1}{\cancel{12}_{6}} = \frac{1}{18}.$

(l) $12 \div \frac{2}{3} = \frac{\cancel{12}^{6}}{1} \times \frac{3}{\cancel{2}} = \frac{18}{1} = 18.$

(m) $\frac{1}{5} \div \frac{20}{1} = \frac{1}{5} \times \frac{1}{20} = \frac{1}{100}$

(n) $20 \div \frac{1}{5} = 20 \times \frac{5}{1} = \frac{100}{1} = 100.$

Pg 47 Ex 23

1) left $= 1 - \frac{3}{8} = \frac{5}{8}.$

2) $\frac{5}{6\times5}^{\times5} + \frac{1}{10\times3}^{\times3} + \frac{9}{10\times3}^{\times3}.$

$= \frac{25}{30} + \frac{3}{30} + \frac{27}{30} = \frac{55}{30}$ kg or $\frac{11}{6}$ kg

3) Vicki $= \frac{9}{10} - \frac{1}{2\times5}^{\times5} = \frac{9}{10} - \frac{5}{10} = \frac{4}{10}.$

In all $= \frac{9}{10} + \frac{4}{10} = \frac{13}{10}$ or $1\frac{3}{10}$ L.

4) Total $= (16 + 24 + 20) = 60.$

Blue Fraction $= \frac{20}{60} = \frac{2}{6} = \frac{1}{3}.$

5) left $= \frac{5}{8}$

eats $= 1 - \frac{5}{8} = \frac{3}{8}.$

$= \left(\frac{3}{8} \times \overset{4}{\cancel{32}}\right) = 12 \leftarrow$

6) red $= \left(\frac{3}{5} \times 250\right) = 150.$

white $= (250 - 150) = 70.$

Fraction white $= \frac{70}{250} = \frac{7}{25} \leftarrow$

$\begin{array}{r} 150 \\ +30 \\ \hline 180 \end{array}$

Pg 48 Ex 7

uses $= \frac{1^{\times2}}{4\times2} + \frac{1}{8} = \frac{2}{8} + \frac{1}{8} = \frac{3}{8}$

left $= 5 - \frac{3}{8} = 4\frac{5}{8}$ L. $\leftarrow$

8) runs + swims $= \frac{3}{4\times2}^{\times2} + \frac{3}{8} = \frac{6}{8} + \frac{3}{8} = \frac{9}{8}$

Bike $= 4\frac{7}{8} - \frac{9}{8} = 3\left(\frac{8}{8}\right)\frac{7}{8} - \frac{9}{8}$

$= 3\frac{6}{8}$ km $\leftarrow$

9) women $= \left(\frac{5}{\cancel{8}}^{71} \times \cancel{568}\right) = 355$

men $= \left(\frac{1}{4} \times 568\right) = 142.$

Total $= 497.$

Children $= (568 - 497) = 71 \leftarrow$

10) Fraction left $= 1 - \frac{1}{3} = \frac{2}{3}.$

$\frac{2}{3} \rightarrow 600.$

$1 \rightarrow \left(600 \times \frac{3}{2}\right) = 900 \leftarrow$

11) Lenna + Maika $= \frac{5}{9} + \frac{1}{3\times3}^{\times3} = \frac{5}{9} + \frac{3}{9}.$

$= \frac{8}{9}$ L.

Joyce $= 1\frac{2}{3} - \frac{8}{9}$

$= \frac{5}{3\times3}^{\times3} - \frac{8}{9} = \frac{15}{9} - \frac{8}{9} = \frac{7}{9}$ L $\leftarrow$

12) Total birds $= (28 + 15 + 7) = 50.$

(a) Sells $= \left(\frac{4}{5} \times \overset{10}{\cancel{50}}\right) = 40.$

(b) Chicken left $= (28 - 21) = 7.$

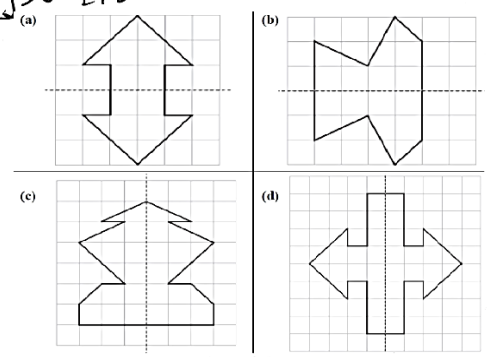
Fraction left $= \frac{7}{28} = \frac{1}{4} \leftarrow$

Pg 50 Ex 1

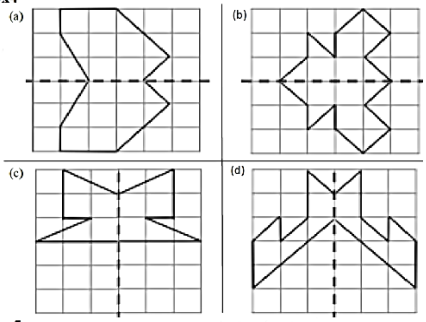
(a) Yes (b) No (c) No (d) Yes.

Pg 50 No 2.

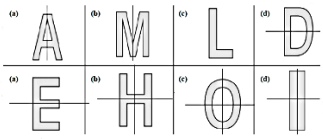
Pg 50 Ex3.



Pg 51 Ex4



Pg 51 Ex.5



Pg 52 Ex1

(a) 1.4, 2.9 (b) 2.7, 4.3.

Pg 53 Ex2

(a) 0.3 = three tenths.
(b) 0.03 = three hundredths.
(c) 0.003 = three thousandths.
(d) 12.7 = Twelve and seven tenths.
(e) 0.12 = twelve hundredths.
(f) 96.13 = Ninety six and thirteen hundredths
(g) 0.051 = Fifty one thousandths.
(h) 50.144 = Fifty and one hundred and forty four thousandths.
(i) 1.016 = one and sixteen thousandths.
(j) 25.021 = Twenty five and twenty one thousandths.

Pg 53 Ex3

(a) 2 tens (b) 5 hundredths.
(c) 6 tenths (d) 3 ones.
(e) 9 thousandths (f) 7 ones.
(g) 1 thousandths (h) 5 tenths.

Pg 54 Ex4

(a) 67.9 (b) 9.82 (c) 46.159.
(d) 5.84 (e) 0.378.

Pg 54 Ex5.

(a) 0.7 (b) 0.07 (c) 0.007.
(d) 2.6 (e) 0.26 (f) 0.026

Pg 54 Ex6

(a) $\frac{1}{5} \times \frac{2}{2} = \frac{2}{10} = 0.2$ (b) $\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$

(c) $\frac{7}{20} \times \frac{5}{5} = \frac{35}{100} = 0.35$ (d) $\frac{1}{8} \times \frac{125}{125} = \frac{125}{1000} = 0.12$

(e) $\frac{11}{50} \times \frac{2}{2} = \frac{22}{100} = 0.22$ (f) $\frac{9}{25} \times \frac{4}{4} = \frac{36}{100} = 0.36$

Pg 55 Ex7

(a) $0.5 = \frac{5}{10} = \frac{1}{2}$. (b) $0.35 = \frac{35}{100} = \frac{7}{20}$.

(c) $0.755 = \frac{755}{1000} = \frac{151}{200}$ (d) $0.8 = \frac{8}{10} = \frac{4}{5}$

(e) $0.55 = \frac{55}{100} = \frac{11}{20}$ (f) $0.225 = \frac{225}{1000} = \frac{9}{40}$

Pg 56 Ex8

(a) 0.380, 0.300, 0.304, 0.403.
Ans: 0.3, 0.304, 0.38, 0.403.

(b) .762, .700, .260, .070.
Ans: 0.26, 0.07, 0.7, 0.762.

(c) Ans: 0.005, 0.05, 0.5, 5.0.

Pg 56 Ex9

(a) .400, .450, .452, .004.
Ans: 0.452, 0.45, 0.4, 0.04.

(b) 1.400, 1.440, 1.040, 1.404.
Ans: 1.44, 1.404, 1.4, 1.04

(c) 1.600, 1.660, 1.060, 1.606
Ans: 1.66, 1.606, 1.6, 1.06.

Pg 56 Ex10.

(a) 6.3 (b) 26.6 (c) 3.832.
(d) 21.17 (e) 12.927 (f) 6.61
(g) 3.4 (h) 1.95 (i) 8.727.
(j) 10.14.

Pg 57 Ex11

(a) 12.34 (b) 123.4 (c) 1234.
(d) 356.5 (e) 3565 (f) 35650.
(g) 6.789 (h) 10 (i) 7800.

Pg 58 Ex12

(a) 6.92 (b) 28.8 (c) 6.608.
(d) 10.2 (e) 6.88 (f) .57.
(g) 38.4 (h) 84.06 (i) 1524.

Pg 58 Ex13

(a) 0.56 (b) 0.768 (c) 0.48.
(d) 0.028 (e) 0.00429 (f) 1.3
(g) 5.12 (h) 18.36 (i) 0.58

Pg 59 Ex 14

(a) 5.1 (b) 0.51 (c) 0.051.
(d) 6.73 (e) 0.673 (f) 0.0673
(g) 5.66 (h) 0.0134 (i) 0.008
(j) 0.082 (k) 0.004 (l) 0.00078

Pg 59 Ex15

(a) 0.2 (b) 0.01 (c) 4.2.
(d) 0.2 (e) 0.24 (f) 14.2.
(g) 14.5 (h) 5.25 (i) 0.175

Pg 60 Ex16

(a) 11 (b) 34 (c) 52.4.
(d) 14 (e) 2 (f) 2.
(g) 80 (h) 0.156 (i) 2.1

Pg 61 Ex17

1) Altogether = (5.5 + 1.25) = 6.75 kg.

2) Spent = (425 + 87.25) = Rs 512.25.
left = (1350.75 − 512.25) = 838.50

3) 1 rice + 2 sugar = 6 kg.
1 rice + 1 sugar = 4.5 kg.
1 sugar = 1.5 kg.
5 sugars = (1.5 × 5) = 7.5 kg.

4) 2 pieces = (1.2 × 2) = 2.4.
left = (21.75 − 2.4) = 19.35.
One piece = $\left(\frac{19.35}{3}\right)$ = 6.45 m.

5) Monday = 87.67.
Tuesday = (87.67 + 2.8) = 90.47.
Wednesday = (90.47 − 5.5) = 84.97.
Total = (87.67 + 90.47 + 84.97) = 263.11

6) 1 bag = 0.75.
6 bags = (0.75 × 6) = 4.5 kg.
Beginning = (38.25 + 4.5)
= 42.75 kg.

Pg 62 Ex1.

(a) 700 (b) 3400 (c) 1000.
(d) 320 (e) 65 (f) 1300.6
(f) $\frac{1}{2}$ × 100 = 50 (g) (2 × 100) + $\left(\frac{1}{5} \times 100\right)$
200 + 20. = 220

Pg 62 Ex 2.

(a) $\frac{500}{100}$ = 5m (b) $\frac{800}{100}$ = 8m.
(c) $\frac{10000}{100}$ = 100m (d) $\frac{670}{100}$ = 6.7 m.
(e) $\frac{780}{100}$ = 7.8m (f) $\frac{1768}{100}$ = 17.68m

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Pg 63 Ex3

(a) 9000 (b) 53000 (c) 10 000

(d) 3600 (e) 150 (f) 8.

(g) $\left(\frac{1}{4} \times 1000\right) = 250$ (h) 2700.

Pg 63 Ex4.

(a) $\frac{6000}{1000} = 6$ (b) $\frac{5000}{1000} = 5$.

(c) $\frac{30000}{1000} = 30$ (d) $\frac{670}{1000} = 0.67$

(e) $\frac{780}{1000} = 0.78$ (f) $\frac{1768}{1000} = 1.768$

(g) $\frac{2008}{1000} = 2.008$ (h) $\frac{134.78}{1000} = 0.13478$

Pg 64 Ex5.

(a) 60 (b) 130 (c) 1000.

(d) 56 (e) 1.8 (f) 0.79.

(g) $\frac{1}{4} \times 10 = \frac{5}{2}$ (h) $(20 + 5) = 25$.

Pg 64 Ex6.

(a) $\frac{40}{10} = 4$. (b) $\frac{7000}{10} = 700$.

(c) $\frac{80000}{10} = 8000$ (d) $\frac{97}{10} = 9.7$.

(e) $\frac{580}{10} = 58$ (f) $\frac{8552}{10} = 855.2$

(g) $\frac{60.08}{10} = 6.008$ (h) $\frac{0.78}{10} = 7.8$

Pg 65 Ex7.

(a) 2000 (b) 53000 (c) 10 000.

(d) 3600 (e) 150 (f) 3250.

(g) $\left(\frac{3}{5} \times \overset{200}{1000}\right) = 600$ (h) $(2000 + 300) = 2300$.

Pg 65 Ex8

(a) $\frac{2000}{1000} = 2$ (b) $\frac{8000}{1000} = 8$.

(c) $\frac{90000}{1000} = 90$ (d) $\frac{270}{1000} = 0.27$.

(e) $\frac{880}{1000} = 0.88$ (f) $\frac{2789}{1000} = 2.769$

(g) $\frac{7007}{1000} = 7.007$ (h) $\frac{634.5}{1000} = 0.6345$

Pg 66 Ex9.

(a) 7m 17cm. (b) 4km 463 m.

(c) 2m 80 cm (d) 13cm 4mm.

(e) 3m 34cm (f) 14cm 0 mm.

(g) 6km 650 cm (h) 11 km 516 m.

Pg 67 Ex10

(a) 17m 35cm (b) 5km 214m.

(c) 10cm 8mm (d) 1m 65 cm.

(e) 12 km 200m (f) 2 km 10 m.

Pg 67 Ex11

(a) 2700 m (b) 2km 900m.

(c) 2350m. (d) 2k 350m.

(e) 1500 m (f) 1km 500m.

(g) 1070m (h) 1km 70m.

Pg 68 Ex12.

Total = $(27.5 + 47.8) = 75.3$ km.

13). $(400 \times 13) = 17200$ m.
$= 17.2$ km.

14). $(13\text{km}075 \times 12) = 156$ km 900 m.

15). (a) $(4075 \times 8) = 32$km 600 m.

(b) $\left(\frac{4075}{5}\right) = 815$m.

Pg 69 Ex1

1 (a). $P = (7 + 10 + 11) = 28$ m.

(b) $P = (3.8 + 5.5 + 3.8 + 5.5) = 18.6$cm.

(c) $P = (6 + 4 + 7 + 4 + 6) = 27$ cm.

(d). $P = (5 + 5 + 5 + 5 + 5) = 25$cm.

(e) $P = (3 + 6 + 2 + 2 + 6) = 19$ cm.

(f) $P = (8 \times 10) = 80$ mm.

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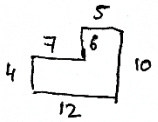
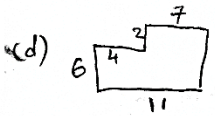
Pg 70 (a) $(8+9+22+13+14+6) = 62$ m.

(b) $[18+6+7+6+3+18+15] = 80$ cm.

(c) $P = (4+7+6+5+10+12) = 44$.

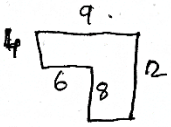


(d)

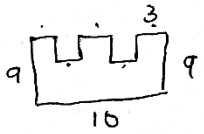


$P = (6+4+2+7+8+11)$
$= 38$ cm.

(e) $P = (9+12+3+8+6+4)$
$= 42$m.



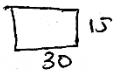
(f) $P = (2\times9) + 9+10+9$
$= 46$cm.



Pg 71 Ex3

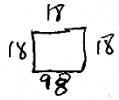
3) Wire $= (6+10+6+10) = 32$ cm.

4) $P = (15+30+15+30)$
$= 90$ cm.



5) length $= \left(\frac{2400}{4}\right) = 600$

6) Perimtr $= (18+18+18+18)$
$= 72$cm.



7) $P = (8+5+8+5)\times2$
$= 26\times2 = 52$ cm.

8) Remain $= (13+9+12+7+25+16)$
$= 82$cm.

Pg 72 Ex1.

(a) 800 (b) 3900 (c) 1000.

(d) 360 (e) 95 (f) 1100.7

(g) $\left(\frac{1}{2}\times100\right) = 50$ (h) $4\times100 + \frac{1}{5}\times100$.
$(400+20) = 420$.

Pg 72 Ex2.

(a) $\frac{400}{100} = 4$ (b) $\frac{600}{100} = 6$.

(c) $\frac{10000}{100} = 100$ (d) $\frac{790}{100} = 7.9$.

(e) $\frac{7}{100} = 0.07$ (f) $\frac{1768}{100} = 17.68$

Pg 73 Ex3

(a) 9000 (b) 53000.

(c) 10000 (d) 3600.

(e) 150 (f) 8.

(g) $\left(\frac{1}{4}\times1000\right) = 250$ (h) $\left(2\times1000\right) + \left(\frac{7}{10}\times1000\right)$
$(2000+700) = 2700$.

Pg 73 Ex4.

(a) $\frac{7000}{1000} = 7$ (b) $\frac{5000}{1000} = 5$.

(c) $\frac{40000}{1000} = 40$ (d) $\frac{790}{1000} = 0.79$.

(e) $\frac{78}{1000} = 0.078$ (f) $\frac{1768}{1000} = 1.768$.

(g) $\frac{0.8}{1000} = 0.0008$ (h) $\frac{134.78}{1000} = 0.13478$

Pg 74 Ex5

(a) 7L 165 mL. (b). 2L 57CL.

(c) 10L 92 CL (d). 564mL.

(e) 5L 760 mL (f). 2L 60 CL.

(g) 5L 750mL (h). 45CL.

Pg 75 Ex6.

Coffee $= (7.9\text{L}\times1000) = 7\text{L}\ 900$ mL.

milk $= (10360 - 7900) =$ 2L 460mL.

7). Stan $= 8.3\text{L} =$ 8L 300mL. +
Etan $= 6970\text{mL}$ 6L 970mL.
Altogether $=$ 15L 270mL.

8). Bough $= (8\times1.5) =$ 12L.

No of pupils $= \frac{12}{0.5} = \frac{120}{5} = 24$

9). Bought $= (12\times550) =$ 6600mL.
$=$ 6L 600mL.

10) Monday $= 1.6\text{L} =$ 1600mL.

Tuesday $= (1600+950) =$ 2550 mL.

Bugs $= (2.4\times3) = 7.2\text{L} =$ 7200mL.

left $= (7200 - 1600 - 2550) =$ 3050 mL
$=$ 3L 50mL.

Pg 75 Ex11.

January = $(31 \times 1.24) = 38.44$
$= 38440$ mL.
$= 38$L 440mL.

Pg 76 Ex12

(a) $(8750 - 7250) = 1500$ml $= 1$L 500 mL.

(b) In all = $(5400 + 4500 + 6750 + 7250 + 8750)$
$= 32650$ mL $= 32$L 650 mL.

13) (a) 1 glass = 420mL
8 glasses = $(420 \times 8) = 3360$mL.
$= 3$L 360 mL.

(b) At first = $(3360 + 250) = 3$L 610mL.

14) (a) No of pots = $\frac{40}{2.5} = \frac{400}{25} = 16$.

(b) Breakfast = $(14 \times 2.5) = 35$L.

Pg 77 Ex1

(a) 8600 (b) 54000 (c) 10000
(d) 3800 (e) 150 (f) $\left(\frac{2}{5} \times 1000\right) = 400$

(g) $(2 \times 1000) * \left(\frac{1}{4} \times 1000\right)$
$2000 + 250 = 2250$

(h) $(7 \times 1000) + \left(\frac{9}{10} \times 1000\right)$
$7000 + 900$
$= 7900$

Pg 77 Ex2

(a) $\frac{2000}{1000} = 2$ (b) $\frac{5000}{1000} = 5$

(c) $\frac{90000}{1000} = 90$ (d) $\frac{370}{1000} = 0.37$

(e) $\frac{88}{1000} = 0.088$ (f) $\frac{2789}{1000} = 2.789$.

(g) $\frac{6006}{1000} = 6.006$ (h) $\frac{7865}{1000} = 0.7865$

Pg 78 Ex3

(a) 7000 (b) 65000
(c) 10000 (d) 3700
(e) 250 (f) $\left(\frac{7}{50} \times 1000^{20}\right) = 140$.

(g) $(2 \times 1000) + \left(\frac{3}{4} \times 1000\right)$
$2000 + 750$
2750

(h) $(2 \times 1000) + \left(\frac{3}{10} \times 1000\right)$
$2000 + 300$
2300

Pg 79 Ex5

(a) 7kg 495g (b) 6kg 440g.
(c) 16 kg 860g (d) 17t 050 kg.
(e). 526g (f). 210kg.

Ex6

Alison = $(73650 - 5075) = 68$ kg 575g.

7) flour = $(3000 - 900) = 2100$g
$= 2$kg 100g.

8). 8t = $(8 \times 1000) = 8000$kg.

No of tiles = $\frac{8000}{1.25} = \frac{800000}{125} = 6400$

9) 8000 grains = $(1.04 \times 1000) = 1040$ kg

1 grain = $\frac{1040 \times 1000}{8000}$ g
$= 130$ g.

10) omnicane = $(329\,950 + 65\,250)$
$= 395$t 200 kg.

Both = $(329\,950 + 395\,200)$
$= 725$t 150 kg.

11) 1 box = 275
75 boxes = $(275 \times 75) = 20\,625$ kg.
$= 20$t 625 kg.

Total = $(6$t 500 kg + 20t 625 kgs$)$
$= 27$t 125 kg.

12) Heavier = $(3960 - 2700) = 1$kg 260g.

13). $\frac{1800}{3} = 600$g.

14) $(9750 - 8850) = 900$g.

15). Sister = $(125 \times 5) = 625$.
Both = $(625 + 125) = 750$ g.

16) Tuesday = $(30960 + 10040)$
$= 41000$g.
Both = $(30960 + 41000) = 71960$
$= 71$kg 960g.

Pg 80 Ex 17

Andrew = (4870 − 3560) = 1310.

Both = (4870 + 1310) = 6180
= 6kg 180 g.

18) (a) (4370 − 2500) = 1870
= 1kg 870 g.

(b) Total = (4370 + 2500) = 6870
= 6kg 870 g.

19). (25200 − 11350) = 13850.
= 13kg 850 g

Pg 81 N°1.

(a) 800 (b) 750 (c) 10000 (d) 4580.

Pg 81 N°2

(a) Rs 9 (b) Rs 15. (c) Rs 0·8 (d) 16·50.

3) Spent = (46·90 + 28·50) = Rs 75·40.
left = (250 − 75·40) = Rs 174·60

4) In all = (78·50 + 105) = Rs 183·50

5) Recie = (4000 − 3490·50) = Rs 509·50

6) Two dresses = (490 × 2) = 980
Total bugs = (980 + 1275) = 2255.
Get back = (3000 − 2255) = Rs 745

7) Total in 1 month = (757·75 + 12575 + 9500)
= 22832·75.
6 months = (22832·75 × 6) = Rs 136996·50.

8) 5 Chairs = (75000 − 20000) = 55000.
1 Chair = $\frac{55000}{5}$ = 11000.

9) Jan + Feb = (500 + 350) = 850.
March = (1000 − 850) = Rs 150 ←

10). Andy now = Rs 19·65.
Ben now = Rs 19·65.
Ben at first = (19·65 + 43·60)
= Rs 63·25.

Pg 83 N°1

Profit = (7850 − 2500) = 5350.

2) Sell = (825 + 150) = 975.

3) loss = (18·25 − 12·90) = Rs 5·35

4) Sells = (19 × 24) = Rs 456.
Profit = (456 − 408) = 48.

5) Sold = (25·50 × 12). = Rs 306.
Profit = (306 − 175) = Rs 131.

6) Purchased = (120 × 4) = 480.
Sold 72 = (4·50 × 72).

7). spent = (1800 + 795) = 2595.
Bicycle cost = (5600 + 2595) = 8195
Profit = (11250 − 8195) = 3055.

8) House in all = (680000 + 175000)
= 805000.
Selling price = (805000 + 75000)
= Rs 880000.

9) Television cost in all = (27000 + 2500 + 1875)
= 31375.
Selling price = (31375 − 3825)
= Rs 27550.

Pg 84 N°1 (word problems on wages).

1) 1 week = (1250 × 5) = 6250.
7 weeks = (6250 × 7) = 43750.

2) 1 Helper. = (750 − 375) = 1375.
6 helpers = (1375 × 6) = 8250.
3 masons = (1750 × 3) = 5250.
1 day = (8250 + 5250) = 13500.
5 days = (13500 × 5) = 67500.

14.

Pg 85 N°3.

(i) weekly salary = (175 × 40) = 7000.

(ii) 5 hours overtime = (5 × 175 × 2)
= 1750.

Salary = (7000 + 1750) = 8750.

4) 1 week days = 1050.
14 week days = (1050 × 14)
= 14700

4 weekend = (1425 × 4)
= 5700.

Total = (14700 + 5700) = Rs 20400.

M	T	W	T	F	S	S
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

5) Weekdays = (8 × 250 × 5)
= 10000.

Saturday = (6 × 325) = 1950.

Sunday = (3 × 325) = 975.

1 week = (10000 + 1950 + 975)
= 12925.

Pg 86 N°1.

1) Watch = (27 × 51) = 1377.

2) Pounds = $\left(\frac{36680}{56}\right)$ = £655.

3) Euro = $\frac{54990}{52}$ = €1098.

4) Rupees = (650 × 57) = Rs 37050.

5) Rupees change = (850 × 54) = 45900.

Spend = $\frac{3}{4}$.

Fraction left = $1 - \frac{3}{4} = \frac{1}{4}$.

Money left = $\left(\frac{1}{4} \times 45900\right)$ = 11475

6) Brings = (1500 × 48) = Rs 72000

spent = (36500 + 17212) = 53712.

left = (72000 − 53712) = 18288.

Dollars get = $\frac{18288}{48}$ = 381

Pg 88 N°1

1) 2:20, twenty past two.
2) 5:45, quarter to five.
3) 12:25, twenty five past twelve.
4) 3:35, twenty five to four.
5) 11:15, quarter past eleven.
6) 10:20, twenty past ten.

Pg 89 N°2

6 a.m.	8:30 p.m	10.45 p.m	8.20 a.m	4.40 p.m
0600	20:30	22.45	08.20	16.40

N°3) 1.00 a.m 0100 one o'clock in the morning

→ 3.40 a.m 0340 twenty to four in the morning.

→ 12.00 a.m. 12.00 noon.

→ 4.00 p.m 16.00 four o'clock in the afternoon

– 7.45 a.m 07.45 quarter to eight in the morning.

– 7.10 p.m. 19.10 ten past seven in the afternoon.

– 2.25 a.m 02.25 Twenty five past two.

Pg 90 N°4

4 (a). 2 × 60 = 120

(b) $3\frac{1}{4}$h = (3 × 60) + $\left(\frac{1}{4} \times 60\right)$ = 180 + 15
= 195.

(c) $4\frac{1}{2}$h = (4 × 60) + $\left(\frac{1}{2} \times 60\right)$ = 240 + 30 = 270.

(d) $1\frac{1}{5}$h = 60 + $\left(\frac{1}{5} \times 60\right)$ = 60 + 12 = 72.

(e) $\frac{180}{60}$ = 3h.

(f) $\frac{135}{60} = \frac{27}{12} = \frac{9}{4}$ or $2\frac{1}{4}$.

(g) 225 = $\frac{225}{60} = \frac{45}{12} = \frac{15}{4} = 3\frac{3}{4}$

(h) $\frac{350}{60} = \frac{35}{6} = 5\frac{5}{6}$ h.

15

Pg 90 Ex5

(a) $(4 \times 3600) = 14400$

(b) $(3 \times 3600) + \left(\frac{1}{2} \times 3600\right) = 10800 + 1800 = 12600$.

(c) $\left(2 \times 3600\right) + \left(\frac{3}{4} \times 3600\right) = 7200 + 2700 = 9900$.

(d) $3600 + \left(\frac{2}{3} \times 3600\right) = 3600 + 2400 = 6000$.

(e) $10\,800 = \frac{10800}{3600} = \frac{108}{36} = \frac{9}{3} = 3$.

(f) $\frac{9000}{3600} = \frac{90}{36} = \frac{10}{4} = \frac{5}{2}$ or $2\frac{1}{2}$ h.

(g) $\frac{9600}{3600} = \frac{96}{36} = \frac{16}{6} = \frac{8}{3}$ or $2\frac{2}{3}$ h.

(h) $\frac{13500}{3600} = \frac{135}{36} = \frac{45}{12} = \frac{15}{4} = 3\frac{3}{4}$.

Pg 91 Ex6

(a) $(3 \times 60) = 180$.

(b) $\left(\frac{5}{6} \times 60\right) = 50$.

(c) $5\frac{3}{4} = (5 \times 60) + \left(\frac{3}{4} \times 60\right) = 300 + 45 = 345$ s.

(d) $1\frac{1}{3} = 60 + \left(\frac{1}{3} \times 60\right) = 60 + 20 = 80$ s.

(e) $240\text{ s} = \frac{240}{60} = 4$ min.

(f) $390\text{ s} = \frac{390}{60} = 6\frac{3}{6} = 6\frac{1}{2}$ min.

(g) $345\text{ s} = \frac{345}{60} = \frac{69}{12} = 5\frac{9}{12} = 5\frac{3}{4}$ min

(h) $160 = \frac{160}{60} = \frac{16}{6} = \frac{8}{3} = 2\frac{2}{3}$ min.

7 (a) 12h 56 (b) 10h 53 (c) 17h 75 (+1 60−) 18h 15

(d) 9h 48 (e) 14h 83 (+1 60−) 15h 23min (f) 16h 75 (+1 60−) 17h 15

2 (a) 5h 21 (b) 8h 17 (c) 11h 09.

(d) 4h 32 (e) 10h 43 (f) 8h 35

Pg 92 Ex8

(a) 12h 48. (b) 10h 25 (c) 6h 45.

(d) 6h 100 (+1 60−) 7h 40 (e) 18h 72 (+1 60−) 19h 12 (f) 35h 175 (+2 120−) 37h 55

Pg 93 Ex9

(a) 4h 10 (b) 2h 10 (c) 3h 07

(d) 3 | 5h 09 → 3h 129. 1h 43 (e) 5 | 6h 40 → 5h 100. 1h 20 (f) 5 | 7h 25 → 5h 145 1h 29

Pg 93 Ex10

(a) 4 days $= (4 \times 24) = 96$ h.

(b) $(2 \times 24) + \left(\frac{1}{2} \times 24\right) = 48 + 12 = 60$ h

(c) $24 + \left(\frac{1}{4} \times 24\right) = 24 + 6 = 30$ h.

(d) $(4 \times 24) + \left(\frac{1}{3} \times 24\right) = 96 + 8 = 104$ h.

(e) $\frac{240}{24} = 10$ days.

(f) $\frac{192}{24} = \frac{48}{6} = 8$ days.

(g) $\frac{132}{24} = \frac{33}{6} = \frac{11}{2} = 5\frac{1}{2}$ days.

(h) $\frac{84}{24} = \frac{21}{6} = \frac{7}{2} = 3\frac{1}{2}$ days.

Pg 94 Ex11

(a) 8 days 13h (b) 8 day 27 h (+1 24) 9 day 3h (c) 4day 35h (1 24) 3days 11h

Pg 94 Ex12

(a) 3 days 11 h. (b) 1 day 18 h (c) 1 day 10 h.

Pg 95 Ex13

(a) 2.45 = 14.45 − 10.15 → 4 30 ← $(4 \times 60) + 30$. 240 + 30 270 min

(b) 6pm = 18:00 − 800 → 1000 ← $(10 \times 60) = 600$ min

(c) 5.45 − 10:30 pm = 22:30 (+12) 2c 4m 22 30 − 5 45 = 16 45 $(16 \times 60) + 45 = 960 + 45 = 1005$ ←

Pg 95 Nº13 (d).

5 20 a.m – 10:35 p.m ↓ +12
22:35

22 35
− 5 20
17 15 ⇒ (17 × 60) + 15
1620 + 15 = 1635 min ←

Pg 95 Ex14

(a) 9 years 10 months. ←

(b) 15 years 13 months
+1 12 −
16 years 1 month. ← ←

(c) 5 years 2 months. ←

(d) 22 12
~~23~~y 5m.
17 9m
5y 8m 5 years 8 months ←

Pg 96 Ex15

14 60
15) 15 30 6h 40min ←
−08 50
6 40

16) 10.00 a.m. 19 30
7.30 pm = 19:30 −1000
9h 30 min ←

17) 11 60
~~12~~00
− 330
8 30 ~~8h3~~ 8.30 a.m. ←

18) 600 → 17 60
1800
− 430 13.30.
13 30

19) 11y 6M.
+ 2y 7M
13 13
+1 12 −
14 years 1 month. ←

20) 12y 2m
×2
24y 4m ←

Pg 97 Nº1

a) 1900, 2100 (b) 6300, 6450.
(c) 4400, 4900 (d) 5500, 5250.
(e) 464, 456 (f) 20800, 41600
(g) 19200, 76800 (h) 100000, 1009000
(i) 16, 8 (j) 45, 15.

2) (a) 100, 121 (b) 169, 196.
(c) 256, 361 (d) 64, 125.

3) (a) 26.8, 29 (b) 252.4, 253.2.
(c) 68.4, 67 (d) 11.3, 6.8.
(e) $5\frac{1}{2}$, 7 (f) $\frac{1}{16}$, $\frac{1}{32}$.
(g) $2\frac{3}{4}$, 3 (h) $9\frac{1}{3}$, $8\frac{2}{3}$.

4) (a) (325, 80) (350, 75)
(b) (300, 120), (250, 80).
(c) (1800, 200), (2000, 225).
(d) (49, 49), (81, 36).

Pg 98 Nº1

(a) 36 (b) 27 (c) 8 (d) 343

2) (a) $32 = 2\times2\times2\times2\times2 = 2^5$.
(b) $243 = 3\times3\times3\times3\times3 = 3^5$.
(c) $625 = 5\times5\times5\times5 = 5^4$.
(d) $729 = 9\times9\times9 = 9^3$

3) (a) 2 (b) 5 (c) 3.
(d) 4 (e) 2 (f) 3

4) (a) $7^2 + 4^3 = 49 + 64 = 113$.
(b) $12^2 + 6^2 = 144 + 36 = 180$.
(c) $9^2 + 10^2 = 81 + 100 = 181$.
(d) $3^2 + 9^2 = 9 + 81 = 90$.
(e) $12^2 - 5^3 = 144 - 125 = 19$.
(f) $7^2 - 3^3 = 49 - 27 = 22$.
(g) $10^3 - 4^4 = 1000 - 256 = 744$.
(h) $9^3 - 4^2 = 729 - 16 = 713$

Pg 99 Ex 5

(a) 5^{12} (b) 12^{6} (c) 7^{10} (d) 11^{7}

(e) 10^{2} (f) 7^{5} (g) 9^{5} (h) 12^{4}.

6) (a) 8000 (b) 4500 (c) 12 00000.

(d) 4500 (e) 2060000 (f) 10275000.

Pg 100 N°1

Common year: 2023, 2021, 2019, 2015

leap year: 2016, 2012, 2024, 2008.

Pg 101 N°2.

(a) $(30-23)+1 = 8$.

15 +

23. ←

(b) $(30-15)+1 = 16$

21 +

37 ←

3). oct = 1. DEC = 31

NOV = 30 Jan = 12.

Total = (1+30+31+12) = 74.

4). August = 31 days − 16 days

+ 5

21.

5 September.

5). 23 + 8 = 31 dec.

7 →

15

7th January. 2012 ←

Pg 102 N°6

Mauritius = (0800 + 4hr) = 12:00 or Noon.

7) Canada = (1100 − 4h) = 07:00 ←

8) 22:00 03 00 07 00

11 30 16 30 20 30.

12 00 17 00 21 00.

9). Difference = (10 00 − 08 30) = 1h30 min.

Mauritius = (15 00 − 1h 30)

= 13 30

10). (10 30 14) = [illegible]

Pg 103 N°11

Mauritius = 1800 + 1 15 $\frac{1}{4} \times 60 = 15$

= 19 15.

12). Difference = (0800 − 0600) = 2h.

Mauritius = (0000 + 2) = 02 00.

13) Difference = (1130 − 0530) = 6h.

Reached Mauritian time = 1145 − 6 = 0545.

long = (2400 − 1900) = 05 00.

05 45 +

10 45 ←

14) Difference = (1200 − 0600) = 6hr.

Mauritian time = (21 30 + 11 h)

= 32 30

= 1 day + 8h 30.

Singapore time = 1 day + 6h 30 + 6h

= 1 day and 14h 30.

= Saturday 14h 30 ←

Pg 104 Ex 1.

(a) $(8 \times 5) = 40\ cm^2$ (b) $(11 \times 9) = 99\ m^2$.

(c) $(15 \times 12) = 180\ cm^2$.

2) (a) $= (12 \times 5 \cdot 5) = 66\ m^2$.

(b) $= \frac{96}{8} = 12\ cm$.

(c) $= \frac{252}{18} = 14\ cm$.

Pg 105 Ex 3:

(a) $(9 \times 9) = 81\ m^2$ (b) $(16 \times 16) = 256\ cm^2$

(c) $(20 \times 20) = 400\ m^2$.

4) (a) $(10 \times 10) = 100\ m^2$.

(b) $\sqrt{625} = 25\ cm$.

(c) $\sqrt{289} = 17\ cm$.

(d) $(18 \times 18) = 324\ cm^2$.

18

Pg 106 Ex5

(a) $\frac{16 \times 9}{2} = 72\ cm^2$ (b) $\left(\frac{4 \times 10}{2}\right) = 20\ cm^2$

(c) $\frac{14 \times 3}{2} = 21\ cm^2$.

Ex6.

(a) $\frac{(8 \times 5)}{2} = 20$ (b) $\frac{6 \times 6}{2} = 18$

7 (a) Area of rectangle $= (8 \times 6) = 48\ cm^2$.

Area A $= \frac{4 \times 5}{2} = 10\ cm^2$

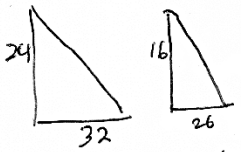
B $= \frac{3 \times 6}{2} = 9\ cm^2$.

C $= \frac{2 \times 8}{2} = 8\ cm^2$.

A + B + C $= (10 + 9 + 8) = 27\ cm^2$.

Shaded $= (48 - 27) = 21\ cm^2$.

8) Area of big triangle $= \left(\frac{24 \times 32}{2}\right) = 384$



Area of small $\Delta = \left(\frac{16 \times 20}{2}\right) = 160$.

Area of shaded part $= (384 - 160) = 224\ m^2$

Pg 108 No 9

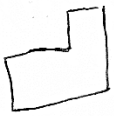
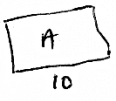
(a)  → 

$11 - 5 = 6$.

Area A $= (8 \times 6) = 48$.

Area B $= (4 \times 5) = 20$.

Area of figure $= (48 + 20) = 68\ cm^2$.

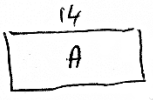
(b)  → 

$9 - 5 = 4$.

Area of A $= (5 \times 10) = 50$.

Area of B $= (4 \times 4) = 16$.

Area of figure $= 66\ cm^2$.

(c) 

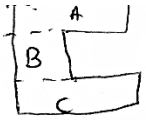
$5 + 5 + 4 = 14$

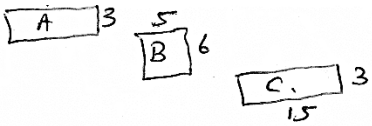
$10 - 2 = 8$

Area of A $= (14 \times 2) = 28$

B $= (5 \times 8) = 40$

Figure $= (28 + 40) = 68\ m^2$.

(d) 



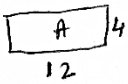
Area of A $= (12 \times 3) = 36$.

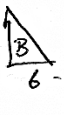
B $= (5 \times 6) = 30$

C $= (15 \times 3) = 45$

Total $111\ m^2$.

(e) 

→ 

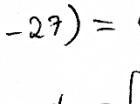


Area of A $= (12 \times 4) = 48$.

Area of B $= \left(\frac{7 \times 6}{2}\right) = 21$.

Total 69

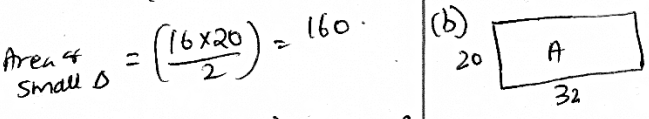
Pg 109 Ex10 (a)

(a) 

Area of A $= (4 \times 4) = 16$.

B $= (2 \times 2) = 4$.

Shaded $= (16 - 4) = 12\ cm^2$.

(b) 

Area of A $= (32 \times 20) = 640\ m^2$.

B $= (18 \times 30) = 540\ m^2$

$= 100$

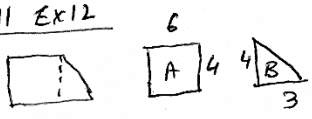
Shaded

Pg 110 Ex11

(a) $(10 \times 4) = 40$. (b) $(8 \times 5) = 40$.

(c) $(9 \times 3) = 27$.

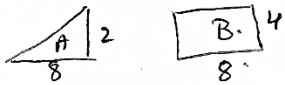
Pg 111 Ex12

(a) 

Area of A $= (6 \times 4) = 24\ cm^2$.

B $= \frac{4 \times 3}{2} = 6\ cm^2$ +

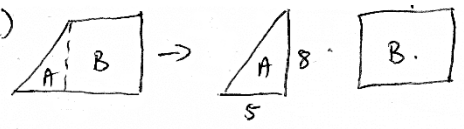
Trapezium $= 30$

(b) 

Area of A $= \frac{2 \times 8}{2} = 8m^2$

B $= \frac{4 \times 8}{2} = 16m^2$ +

Trapezium $= 24\ m^2$

(c) 

Area of A = $\frac{(5\times8)}{2}$ = 20 cm.

B = (14 × 8) = 112 cm². +

Trapezium = 132 cm² ←

Pg 112 Ex 1

(a) $\left(\frac{1}{4}\times100\right)$ = 25% (b) $\left(\frac{2}{5}\times100\right)$ = 40%

(c) $\left(\frac{7}{25}\times100\right)$ = 28% (d) $\left(\frac{11}{50}\times100\right)$ = 22%.

(e) $1\frac{1}{10} = \left(100+\frac{1}{10}\times100\right) = 100+10 = 110$ %

(f) $2\frac{3}{5} = 200 + \left(\frac{3}{5}\times100\right) = 200+60 = 260$ %

Pg 112 Ex 2

(a) $\frac{15}{100} = \frac{3}{20}$ (b) $\frac{20}{100} = \frac{1}{5}$.

(c) $\frac{24}{100} = \frac{6}{25}$ (d) $\frac{65}{100} = \frac{13}{20}$.

(e) $\frac{100}{100} = 1$ (f) $\frac{125}{100} = \frac{5}{4} = 1\frac{1}{4}$

3) (a) 0.17 (b) 0.25 (c) 0.75.

(d) 0.48 (e) 1.25 (f) 2.50

4) (a) 0.22 × 100 = 22%.

(b) 0.09 × 100 = 9%.

(c) 0.5 × 100 = 50%.

(d) 0.25 × 100 = 25%.

(e) 1.7 × 100 = 170%.

(f) 3.5 × 100 = 350%.

5)

a)	$\frac{11}{100}$	0.11	11%.
(b)	$\frac{42}{100}$	0.42	42%.
(c)	$\frac{33}{50}$	0.66	66%.
(d)	$\frac{17}{100}$	0.17	17%.
(e)	$\frac{9}{100}$	0.09	9%.
(f)	$\frac{3}{4}$	0.75	75%.

Pg 113 Ex 6

(a) $\frac{8}{100}\times200$ = 16 cl.

(b) $\frac{15}{100}\times1200$ = Rs 180.

(c) $\frac{10}{100}\times900$ = 90.

(d) $\left(\frac{150}{100}\times2000\right)$ = 3000.

7) (a) $\frac{70}{200}\times\frac{5}{100}$ = 35%.

(b) $\left(\frac{30}{150}\times100\right)$ = 20%.

(c) $\left(\frac{450}{750}\times100\right)$ = 60%.

(d) $\frac{42}{336}\times100 = \frac{25}{2}$ %.

(e) $\left(\frac{1}{25}\times100\right)$ = 4%.

(f) $\left(\frac{45}{3\times60}\right)^{\times100}$ = 25%.

8) Spent = $\left(\frac{35}{100}\times2000\right)$ = 700.

Left = (2000 − 700) = 1300.

9) % boys = $\frac{405}{900}\times100$ = 45%.

% boys = (100 − 45) = 55%.

Pg 115 Ex 10

(a) $\left(\frac{30}{100}\times2000\right)$ = 600 Ans = 2600.

(b) $\left(\frac{110}{100}\times150\right)$ = 165 Ans = (150 + 165) = 315

(c) $\left(\frac{15}{100}\times2500\right)$ = 375 Ans = (2500 − 375) = 2125

(d) $\left(\frac{20}{100}\times120\right)$ = 24 Ans = (120 − 24) = 96 L

11) Decreased = $\left(\frac{15}{100}\times25500\right)$ = 3825.

New price = (25 500 − 3825)

= Rs 21675

[20]

Pg 115 No 13

Increase $= (18000 - 15000) = 3000$.

% increase $= \left(\frac{3000}{15000} \times 100\right) = 20\%$.

14) Discount $= (1500 - 1275) = 225$

% discount $= \left(\frac{225}{1500} \times 100\right) = 15\%$.

Pg 116 No 1

1) $36\% \rightarrow 18504$

$1\% \rightarrow \frac{18504}{36}$

$100\% \rightarrow \left(\frac{18504}{36} \times 100\right) = 51\,400$.

2) $25\% \rightarrow 15000$

$1\% \rightarrow \frac{15000}{25}$

$100\% \rightarrow \left(\frac{15000}{25} \times 100^{4}\right) = 60\,000$.

3) Spent $= (35 + 15) = 50\%$.

left $= (100 - 50) = 50\%$.

$50\% \rightarrow 34000$

$1\% \rightarrow \frac{34000}{50}$

$100\% \rightarrow \left(\frac{34000}{50} \times 100\right) = 68\,000$.

4) % girls $= 100 - 48 = 52\%$.

$52\% \rightarrow 416$.

$1\% \rightarrow \frac{416}{52}$

$100\% \rightarrow \left(\frac{416}{52} \times 100\right) = 800$.

5) Spent $= (25 + 10 + 12) = 47\%$.

Saves $= (100 - 47) = 53\%$.

$= \left(\frac{53}{100} \times 42000\right)$

$= 22\,260$.

6) Dropped $= (25 + 15) = 40\%$.

Now $= 100 - 40 = 60\%$.

$= \left(\frac{60}{100} \times 150\,000\right) = 90\,000$

Pg 117 Ex 1

Profit $= (8.70 - 6.00) = 2.70$.

% profit $= \left(\frac{2.70}{6.00} \times 100\right) = 45\%$.

2) Loss $= \left(\frac{15}{100} \times 24500\right) = 3675$.

S.P $= (24500 - 3675) = 20\,825$.

3) B.P $= (120 \times 5) = 600$.

S.P $= (15 \times 60) = 900$.

Profit $= (900 - 600) = 300$.

% profit $= \left(\frac{300}{600} \times 100\right) = 50\%$.

$\frac{12}{\times 5}$
$\frac{}{60}$.

4) $120\% \rightarrow 240$.

$1\% \rightarrow \frac{240}{120}$.

$130\% \rightarrow \left(\frac{240}{120} \times 130\right) = 260$.

5) Total cost price $= (740 + 1500) = 2240$.

Discount $= \left(\frac{15}{100} \times 2240\right) = 336$.

Pay $= (2240 - 336) = 1904$.

6). loss $= (5820 - 4800)$

$= 1020$.

loss $= (1200 - 1020) = 180$.

% loss $= \left(\frac{180}{4800} \times 100\right) = 3\frac{3}{4}$ or $\frac{15}{4}$.

7). $1 - \frac{2}{11} = \frac{9}{11}$.

$\frac{9}{11} \rightarrow 1008$

$1 \rightarrow \left(\frac{1008}{9} \times 11\right) = 1232$

buy handbag $= \left(\frac{2}{11} \times 1232\right) = 224$.

$80\% \rightarrow 224$.

$1\% \rightarrow \frac{224}{80}$

$100\% \rightarrow \left(\frac{224}{80} \times 100\right) = 280$.

21

8). 1 packet = 250.
600 packet = 150 000.
+ Transpat = 151 000.
profit = $\left(\frac{7}{100} \times 151\,000\right)$
= 10 570.
S.P = (151 000 + 10570)
= 161570.

Pg 119 N°1.

(a) Average = $\frac{22+27+29}{3} = \frac{78}{3} = 26$.

(b) = $\frac{171+212+105+204}{4} = \frac{692}{4} = 173$.

2). A = $\frac{9723}{7}$ = RS 1389.

3). Total = (35+36+34+38+40+39+44)
= 266
A = $\frac{266}{7}$ = 38°C.

4). 1h 25 min = (60+25) = 85 min.
2h 40 min = (120+40) = 160 min.
3h 35 = (180+35) = 215 min
4h = (60×4) = 240.
Total = 700.
Average = $\frac{700}{4}$ = 175.

Pg 120 Ex5.

(a) Total = (85×3) = 255.
(b) 2 test = (88+80) = 168
Third = (255 − 168) = 87.

6). Sum of five days = (40×5) = 200.
sum 4 days = (40+39+44+40) = 163
fifth day = (200 − 163) = 37

7). Sum of five = (160×5) = 800 cm.
Total of four = (163+150+169+162) = 644
fifth = (800 − 644) = 156 cm.

Pg 121 Ex8.

Sum of 5 = (295×5) = 1475
Sum of 6 = (295+15)×6 = 1860.
6th parcel = 385 (1860 − 1475) = 385

9) Total 4 = (10.1+15.6+14.7+13.4) = 53.8
Sum of 5 levels = (11.5×5) = 57.5.
Fifth level = (57.5 − 53.8) = 3.7

10) 15 Clerks = (8000×15) = 120 000.
5 officers = (10000×5) = 50 000.
20 officers = 170 000
Average = $\frac{170000}{20}$ = 8500.

Pg 122 Ex1.

1 (a) 5 : 35
1 : 7

(b) 10 : 50
1 : 5.

(c) 27 : 54.
3 : 6.
1 : 2.

2) (a) 25 : 2500
1 : 100

(b) 500 : 3000
5 : 30
1 : 6.

(c) 21 : 70.
3 : 10.

(d) 630 : 1080.
35 : 60.
7 : 12.

(e) 15 min : 120 min.
1 : 8.

(f) 750 : 6000.
75 : 600.
15 : 120.
3 : 24
1 : 8.

Pg 123 Ex3.

(a) Yes (b) No (c). No.
(d) Yes (e) Yes (f) 10:6 and 15:9.
5:3 and 5:3
Yes.

4) (a) 6 : 7) ×5
30 35

(b) 2 : 5) ×12.
24 : 60

(c) 7 : 9) ×11
×11 77 : 99.

(d) 3 : 5) ×9.
×9 27 45

(e) 5 : 12
×12 60 144 ×12

(f) 15 : 12.) ÷3
5 4

22

Pg 123 Ex 5

	W	M	Total
	3	5	8
x155	465		1240

$\frac{1240}{8} = 155$

6)

	B	G	Total
	2	3	5
x130	260	390	650

$\frac{650}{5} = 130$

(a) 260 (b) 390

7) Mazda : Honda

2 : 3

424000 : 636000

$\frac{212\,000}{424\,000}$ / 2

8) 2 : 3 x14 → 5 : 42 : 70

$\frac{70}{5} = 14$

9)

	Doreen	Tony	total
	9	5	14
x25	225	125	350 x25

$\frac{350}{14} = 25$

10)

	ink	printer	Total
	1	5	6
		6250	7500 x1250

$\frac{7500}{6}$ 1250

Pg 125 Ex 11

	G	B	T
	4	5	9
	60	75	135

$\frac{135}{9} = 15$

New Girls = (60 + 3) = 63

New Boys = (75 − 5) = 70

Girls	Boys
63	70
9	10

12)

	red	green	Total
	2	3	5
x9	18	27	45 x9

$\frac{45}{5} = 9$

red new = 18 − 2 = 17

green new = 27 + 7 = 34

red	green
17	34
1	2

13)

	Boys	Girls	Total
	1	2	3
	240	480	720

$\frac{720}{3} = 240$

Boy	Girls	Total
2	3	5
240	360	

$\frac{240}{2} = 120$

Girls left = (480 − 360) = 120 ←

14)

	men	women	Total
	3	5	8
x36	108	180	288 x36

$\frac{288}{8} = 36$

	men	women
	4	5
x36	144	180 x36

Men joined = (144 − 108) = 36 ←

15)

	Shane	Henry	Total
	2	3	5
	200	300	500 x100

Shane = (200 + 150) = 350

Shane	Henry
350	300
35	30
7	6

←

16)

	Terry	Sandra	~~More~~ older
	3	7	4 x3
x3	9	21	12

(a) Terry = 9

(b) sum = (21 + 9) = 30

17)

	hens	ducks	More
	4	7	3
x8	32	56	24 x8

	hen	ducks
	2	3
x16	32	48 x16

$\frac{32}{2} = 16$

duck sold = (56 − 48) = 8

23

Pg 127

1) 50 → 1100
1 → $\frac{1100}{50}$.
75 → $\left(\frac{1100}{50} \times 75\right)$ = Rs 1650.

2) 500g → 25
1g → $\frac{25}{500}$.
6000 → $\left(\frac{25}{500} \times 6000\right)$ = 300.

3) 4 pages → 18 min.
1 page → $\frac{18}{4}$.
30 → $\left(\frac{18}{4} \times 30\right)$ = 135 min.

4) 13 cared → 26.
1 → $\frac{26}{13}$.
36 → $\left(\frac{26}{13} \times 36\right)$ = 72 min.

5) 5 min → 6L.
1 min → $\frac{6}{5}$ L.
30 min → $\left(\frac{6}{5} \times 30\right)$ = 36L.

6) 120 km → 1 h.
1 km → $\frac{1}{120}$
200 km → $\left(\frac{1}{120} \times 200\right) = \frac{5}{3}$ h.

7) 24 masons → 6 days.
1 mason → 6×24.
36 → $\frac{6 \times 24}{36}$ = 4 days.

8) 8 men → 3 h.
1 man → 8×3.
6 men → $\left(\frac{8 \times 3}{6}\right)$ = 4h.

9) 5 workers → 8h.
1 worker → 8×5.
12 worker → $\left(\frac{8 \times 5}{12}\right) = \frac{10}{3}$ h.

10) 30 days → 16 dressmakers
1 day → 16×30.
40 → $\left(\frac{16 \times 30}{40}\right)$ = 12.

11) 4 pie → $\frac{3}{2}$ h.
1 pie = $\frac{3}{2} \times \frac{1}{4}$. = $\frac{3}{8}$.
6 pies = $\frac{3}{8} \times 6 = \frac{6}{6}$ = 1h.

Pg 129 N°1

(a) T.S.A = 6×8×8 = 384.
(b) T.S.A = 6×4×4 = 96.

2). T.S.A = 1734.
$l^2 = \frac{1734}{6}$ = 289
$l = \sqrt{289}$ = 17.

3) 80 $\frac{100}{169}$ $\frac{600}{169 \times 6 = 1014}$.
$\frac{13}{25}$ $\frac{625}{}$ 3750

Pg 130 N°4

(a) T.S.A = 2(l×w) + 2(l×h) + 2(w×h)
= 2(8×3) + 2(8×4) + 2(3×4).
= 48 + 64 + 24.
= 136 cm^2.

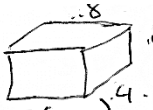
(b) T.S.A = 2(11×10) + 2(11×7) + 2(10×7)
= 220 + 154 + 140
= 514.

(c) T.S.A = 2(4×4) + 2(4×10) + 2(10×4).
= 32 + 80 + 80
= 192

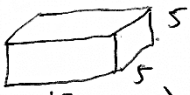
(d) T.S.A = 2(10×1) + 2(10×7) + 2(1×7).
= 20 + 140 + 14
= 174

24

Pg 131 N°5.



T.S.A = 2(8×4) + 2(8×4) + 2(4×4).
= 64 + 64 + 32
= 160.



6) T.S.A = 2(15×5) + 2(15×5) + 2(5×5).
= 150 + 150 + 50
= 350

7) 1 Face = (5×5) = 25.
Number of Faces = (5+5+5+5+2).
= 22.
T.S.A = (22×25) = 550 cm².

8). ~~T.S.A of A~~ Pg 132
Area of room = (700×400)
= 280 000.
Area of 1 tile = (10×10) = 100.
N° of tiles = 280 000 / 100 = 2800.

9) Area of Veranda = ~~(18×15) = 270~~.
= (800×500) = 40 0000.
Area of 1 tile = ~~40 0000~~ (8×8) = 64.
N° of tiles = (40 0000 / 64) = 6250.

10) Area of alley = (450 × 280).
Area of 1 tile = 25×20.
N° of tiles = (450×280 / 25×20) = 252.

Pg 133 N°1
(a) 55 (b) 45° (c) 23°
(d) 49° (e) 46° (f) 51°

2) (a) 130° (b) 90° (c) 43°
(d) 145° (e) 125° (f) 80°

3) (a) 100° (b) 150 (c) 75°
(d) 160° (e) 50° (f) 117°.

Pg 136 N°4
(a) (180−80) = 100°.
(b) (90−30) = 60°. (180−90=90)
(c) (21+18) = 39.
180−39 = 141.
(d) 180/3 = 60°.
(e) 180−30 = 150.
(150÷2) = 75°
(f) 180−90 = 90
90÷2 = 45°.

Pg 137 Ex 5
(a) 84+50+146 = 280
360−280 = 80°
(b) 52+43+128 = 223
(360−223) = 137°
(c) 47+86+128 = 261
360−261 = 99
(d) 84+146+34 = 214.
146.
(e) 23+234+90 = 347.
360−347 = 13
(f) 90+90+50 = 230
360−230 = 130°
6) 35+25 = 60
(a) 90−60 = 30° ←
(b) 33+68 = 101
180−101 = 79
(c) 34+162+104 = 300
x = (360−300) = 60°
(d) a = (180−80) = 100
100+110+88 = 298
b = (360−298) = 62°
(e) (105+95+85) = 285
c = 360−285 = 75
d = (180−75) = 105°
(f) x = (360−309) = 51
y = (180−95) = 85°.
51+85+148 = 284.
360−284 = 76
z = (180−76) = 104.
(g) 212+97+40 = 329
(360−329) = 31
(h) 52+90+90 = 232
x = (360−232) = 128.
(i) 118+97+71 = 286
x = (360−286) = 74.
y = (180−74) = 106°
(j) x = (180−132) 48°
48+145+90 = 283
360−283 = 77°.
(k) (180−80) = 100
141+100+52 = 293.
x = 360−293 = 67
Y = 180−67 = 113
(l) 360−300 = 60
360−341 = 19.
360−335 = 25.
60+19+25 = 104.
(360−104) = 256.
x = (360−256) = 104°

25

(m) $(42+85) = 127$

$w = 180 - 127 = 53$

$x = 180 - 53 = 127$

$(88+53) = 141$.

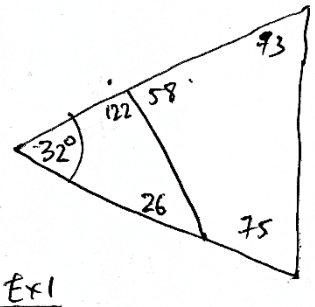
$y = (180 - 141) = 39$.

(n)

$x = 32$

$y = 122$

$z = 58$.



$73 + 75 + 148 = 180$

$180 - 148 = 32$.

$32 + 26 = 58$

$180 - 58$

58

Pg139 Ex1

(a) $2 \times 3 = 6$ ←

(b) $(4 \times 3) : 3 \times 3$

$12 : 9$

$4 : 3$ ←

(c) $(3 - 2) = 1$

$1 \times 3 = 3$ ←

(d) $(5 + 2 + 4 + 1 + 3) = 15$.

In all $= (15 \times 3) = 45$.

2) (a) $(3 \times 5) = 15$

(b) wednesday

(c) friday.

(d) $(3 + 4 + 2 + 5 + 6) = 20$.

$20 \times 5 = 100$.

3) (a) sleeping. ←

(b) $(2 + 1 + \frac{1}{2}) = 3\frac{1}{2}$

$3\frac{1}{2} \times 2 = 7$. ←

(c) $1\frac{1}{2} + 4 = 5\frac{1}{2}$.

$5\frac{1}{2} \times 2 = (10 + 1) = 11$ ←

Pg141 Ex1.

(a) apple

(b) Blueberry.

(c) $(35 - 5) = 30$.

(d) apples : Blueberries.

$35 : 40$

$7 : 8$.

(e) $(35 + 30 + 10 + 25 + 40 + 5)$

$= 145$ ←

2) (a) 3

(b) June.

(c) February and November.

(d) February & June.

$4 : 10$

$2 : 5$

(e) $(3 + 4 + 2 + 3 + 8 + 10 + 6 + 1 + 7 + 8 + 4 + 7)$

63.

(3) Mandy = 270, Kim = 140, Felix = 260.

Ratana = 200, Robert = 130, Janice = 140.

(b) Mandy and felix.

(c) Kim and Janice.

(d) Robet = 130, 260 = felix.

(e) 1140.

(f) $(2006 - 1140) = 860$.

Pg143 Ex1

(a) $(76 + 84 + 62) = 222$

$(360 - 222) = 138°$.

(b) $84° \rightarrow 126$ Children

$1° \rightarrow \frac{126}{84}$.

$360 \rightarrow \left(\frac{126}{84} \times 360\right) = 540$.

(c) $\frac{\text{Blue}}{\text{Red}} - \frac{76}{84} = \frac{19}{21}$.

Pg144 N=2

(a) Sleep.

(b) Play or Homework.

(c) $\frac{24}{4} = 6$ hours.

(e) $360° \rightarrow 24$ h.

$1 \rightarrow \frac{24}{360}$

$120° \rightarrow \left(\frac{24}{360} \times 120\right) = 8$h.

(e) $\frac{45}{360} = \frac{1}{8}$.

3) $30° \rightarrow 5$ pupils

(a) $1° \rightarrow \frac{5}{30}$

$360° \rightarrow \left(\frac{5}{30} \times 360\right) = 60$

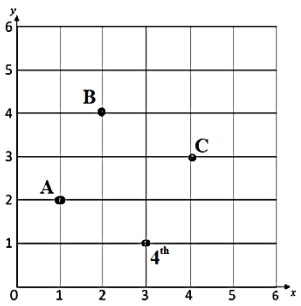
(b) $\frac{60}{360} = \frac{1}{6}$.

(c) $\frac{90}{180} = \frac{1}{2}$.

Pg 145 No 1

A (1,9)	E (6,6)	I (5,11)
B (2,8)	F (7,5)	J (6,10)
C (2,3)	G (8,6)	K (7,11)
D (3,2)	H (7,7)	L (8,11).

2 (a)



Pg 146 No 2.

(a) 4°C (b) 4pm (c) 1pm and 2pm.

2) (a) 9000 (b) 5 hours.

3) (a) Rs 175 (b) 2kg.

(c) 1 kg → 50.

$9\frac{1}{2}$ kg → $(50 \times 9) + \left(\frac{50}{2}\right)$

$450 + 25 = 475$.

(d) $(500 - 475)$ = Rs 25.

4) (a) Rs 48 (b) $2\frac{1}{2}$ kg

(c) 1 kg → Rs 16.

$13\frac{1}{2}$ kg ⇒ $(13 \times 16) + \frac{16}{2}$

$= 208 + 8$

$= 216$ ←

(d) $(1000 - 216)$ = Rs 784 ←

Pg 148 No 1

(a) $(4 \times 4 \times 4) = 64\ cm^3$ (b) $(9 \times 9 \times 9) = 729\ cm^3$

(c) $(12 \times 12 \times 12) = 1728\ cm^3$.

2) (a) $(16 \times 16 \times 16) = 4096\ cm^3$.

(b) $(2.5 \times 2.5 \times 2.5) = 15.625$

(c) $(6.5 \times 6.5 \times 6.5) = 274.625$ or $\frac{2197}{8}$

Pg 149 No 3

(a) $V = (4 \times 3 \times 2) = 24\ cm^3$

(b) $V = (10 \times 6 \times 4) = 240\ cm^3$.

4) (a) $(9 \times 8 \times 4) = 288\ cm^3$.

(b) $(11 \times 5 \times 6) = 330\ cm^3$.

(c) $\frac{540}{6 \times 10} = 90$.

(d) $\frac{756}{9 \times 7} = 12$.

5) $\frac{14}{2} = 7$, $\frac{8}{2} = 4$, $\frac{20}{2} = 10$.

Cubes = $(7 \times 4 \times 10) = 280$.

Pg 150

6) $\frac{12}{2} = 6$ $\frac{12}{2} = 6$ $\frac{12}{2} = 6$.

Cubes = $(6 \times 6 \times 6) = 216$ cm.

7) $\frac{21}{3} = 7$, $\frac{18}{3} = 6$, $\frac{12}{3} = 4$.

Cubes = $(7 \times 6 \times 4) = 168$.

8)

5000	5250	6500	500
5	$5\frac{1}{4}$	$6\frac{1}{2}$	$\frac{1}{2}$.

9)

9	$3\frac{1}{2}$	$\frac{1}{2}$	12.
9000	3500	500	12000

Pg 151 No 10

$V = (60 \times 15 \times 50) = 45000$.

11) $V = (3 \times 1.5 \times 2) = 9\ m^3$.

Litres = $(9 \times 1000) = 9000$ L.

12) $(9 - 6) = 3$.

Volume unoccupied = $(3 \times 3 \times 3) = 27\ cm^3$.

13) T.S.A = 486.

$L^2 = \frac{486}{6} = 81$.

$L = \sqrt{81} = 9$.

Volume = $(9 \times 9 \times 9) = 729$.

14) $H = \left(\frac{8840}{26 \times 17}\right) = 20$cm

27

15) $5.4\,L = (5.4 \times 1000) = 5400\ cm^3$.

$H = \frac{5400}{25 \times 12} = 18$

Height of container $= (18 \times 2) = 36$.

Pg 152 N°21

1) $S = \frac{D}{T} = \frac{300}{3} = 100$ km/h.

2) $S = \frac{D}{T} = \frac{210}{3} = 70$ km/h.

3) $S = \frac{D}{T} = \frac{450}{50} = 9$ m/s.

4) $S = D \div T = \left(252 \div \frac{7}{2}\right) = \left(252 \times \frac{2}{7}\right) = 72$ km/h.

5) $S = D \div T = \left(111 \div 1\frac{1}{2}\right) = \left(111 \div \frac{3}{2}\right) = \left(111 \times \frac{2}{3}\right) = 74$ km/h.

6) Time $= (0940 - 0640) = 3h$.

$S = \frac{D}{T} = \frac{840}{3} = 280$

Pg 153

7) $T = \frac{D}{S} = \frac{210}{70} = 3h$.

8) $T = \frac{800}{20} = 40h$.

9) $T = \frac{D}{S} = \frac{6}{30} = \frac{1}{5}h = \left(\frac{1}{5} \times 60\right) = 12$ min.

Reach school $= 8:12$.

10) $T = \frac{D}{S} = \frac{15}{60} = \frac{1}{4}h = \left(\frac{1}{4} \times 60\right) = 15$ min.

Reach school $= (0745 + 15) = 08:00$

Pg 154.

11) $D = S \times T = (3 \times 4) = 12$ km.

12) $D = S \times T = (2 \times 58) = 116$ m.

13) $D = S \times T = (20 \times 8) = 160$ km/h.

14) $D = S \times T = \left(400 \times 1\frac{3}{4}\right) = \left(400 \times \frac{7}{4}\right) = 700$ km.

Pg 154 – Mixed exercis

1) $S = \frac{D}{T} = \frac{800}{160} = 5$ m/s

2) $T = \frac{D}{S} = \frac{32}{16} = \frac{3200}{16} = 200$ m.

3) $S = D \div T = 660 \div \frac{3}{2} = \left(660 \times \frac{2}{3}\right)$

$= 440$ km/h.

4) $T = \frac{D}{S} = \frac{20}{40} = \frac{1}{2}h = 30$ min.

Reach P.Gois $= (0930 + 30\text{min}) = 10\,00$.

Pg 155

5) ×9 (8 : 9) ×9 Time = 81 s.

72 : 81

$S = \frac{D}{T} = \frac{321}{81} = 4$ m/s.

07 60
08 30
07 50
40

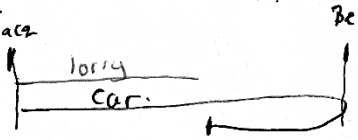
6) Time = 40min $= \frac{40}{60} = \frac{2}{3}h$.

$D = S \times T = \left(\frac{2}{3} \times 30\right) = 20$ km.

7) $D = S \times T = \left(48 \times \frac{3}{2}\right) = 72$ km.

Time $= \frac{D}{S} = \frac{72}{54} = \frac{4}{3}h = 1\frac{1}{3}h$.

8)



Distance covered by both $= 28 \times 2 = 56$.

	Lorry	Car.	Total
×7 (	3 :	5)×7	8)×7
	21	35	56

(a) $T = \frac{D}{S} = \frac{21}{42} = \frac{1}{2}h = 30$ min.

Time meet $= (10h + 30\text{min}) = 10.30$. ←

(b) Time travelled by car $= \frac{1}{2}h$.

$S = \frac{D}{T} = 35 \div \frac{1}{2}$

$= 35 \times \frac{2}{1} = 70$ km/h. ←

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