

TEST 11

SECTION 1

1) 8,059,307.26

2) 5

3) $2\frac{5}{8} = \frac{21}{8}$

4) Perimeter = $8 + 2 + 4 + 5 + 4 + 7 = 30\text{cm}$

5)
$$\begin{array}{r} 3,241 \\ \times 24 \\ \hline 64,820 \\ 12,964 \\ \hline 77,784 \end{array}$$

6) Pentagon

7) $1.4 \times 1.2 = 1.68$

8) 26×16

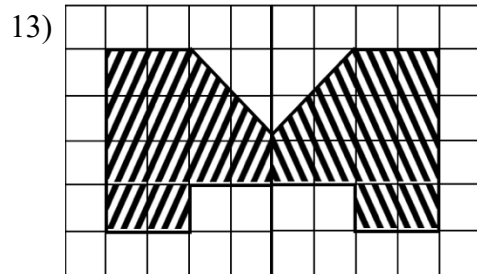
9) $\sqrt{36} + 3$

10) $12\frac{1}{4} \div 3\frac{1}{2} = \frac{49}{4} \times \frac{2}{7} = \frac{7}{2} = 3\frac{1}{2}$

11) Box A = 25 Chocolates
Box B = $25 \times 3 = 75$ Chocolates
Boxes A + B = $25 + 75$
= 100 Chocolates

12)

hrs.	mins.
6	12
- 3	56
<u>2</u>	<u>16</u>



14) Peri of Sq. = 36cm

1 side = $36\text{cm} \div 4 = 9\text{cm}$

Area of Sq. = $S \times S = 9 \times 9 = 81\text{cm}^2$

15) $13 \times 19 = 247 + 9 = 256$

16) Modal Age = 10yrs. 6mths.

17) Volume of Cube = $S \times S \times S$

= $2\text{cm} \times 2\text{cm} \times 2\text{cm}$

= 8cm^3

No. of Cubes in Model = 9 cubes

Volume of Model = $9 \times 8\text{cm}^3 = 72\text{cm}^3$

18) Mean = 72

Total = $72 \times 5 = 360$

New Mean = 85

New Total = $85 \times 6 = 510$

Number added = $510 - 360 = 150$

19) 3-90° turns anti-clockwise

20) Pupils in class = 29

SECTION 2

21) $33\frac{1}{3}\% = \frac{1}{3}$

6 doz. = $12 \times 6 = 72$ eggs

Spoilt = $\frac{1}{3} \times \frac{72}{1} = 24$ eggs

Eggs Left = 48 eggs

Recipe = $\frac{5}{12} \times \frac{48}{1} = 20$ eggs

Eggs Left = $48 - 20 = 28$ eggs

Fraction of Eggs Left = $\frac{28}{72} = \frac{7}{18}$

22) $3.25 \times 1.2 = 3.9 \approx 4$

TEST 11

23) Area of Base of tank = 400cm^2
 \therefore Volume = $400 \times 20 = 8,000\text{cm}^3$
Volume $\frac{2}{5}$ filled = $\frac{2}{5} \times \frac{8,000}{1} = 3,200\text{cm}^3$
 $1000\text{cm}^3 = 1$ Litres
 $3,200 \div 1000 = 3.2$ Litres of water

24) Money earned 1-week Mon. to Sun.
= \$2,020
Saturday Overtime = $7\text{hrs} \times \$60$ per hr.
= \$420
 \therefore Regular Time Pay = $\$2,020 - \420
= \$1,600
Weekly Hours Worked = $8\text{hrs} \times 5$ days
= 40 hrs
Rate of Regular Hrs. = $\$1,600 \div 40\text{hrs}$
= \$40 per hour.

25) Model A Volume = $1,920\text{cm}^3$
No. of Cubes = 30
Vol. of 1 Cube = $1,920\text{cm}^3 \div 30 = 64\text{cm}^3$
1 side Cube = $\sqrt[3]{64} = 4\text{cm}$
Height of Model A = $4\text{cm} \times 4 = 16\text{cm}$

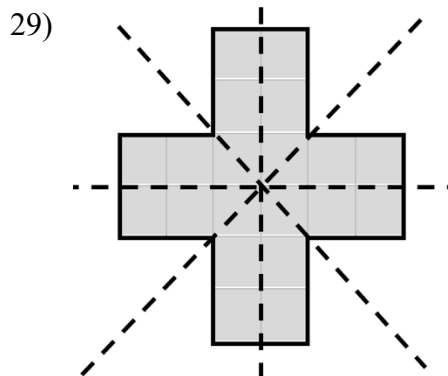
Model B Volume = $1,152\text{cm}^3$
No. of Cubes = 18
Vol. of 1 Cube = $1,152 \div 18 = 64\text{cm}^3$
1 side Cube = $\sqrt[3]{64} = 4\text{cm}$
Height of Model B = $4\text{cm} \times 3 = 12\text{cm}$

Difference in the height between model A and model B = $16\text{cm} - 12\text{cm} = 4\text{cm}$

26) Drama = $18 - 6 = 12$ people
People Left = $75 - (18 + 12) = 75 - 30$
= 45 people
Romance = $\frac{3}{5} \times \frac{45}{1} = 27$ people
People Left = $45 - 27 = 18$ people
Comedy = $0.33 = \frac{1}{3} \times \frac{18}{1} = 6$ people
Crime = $18 - 6 = 12$ people

27) 80 cupcakes $\times \$2 = \160
 80 cupcakes $\div 2 = 40$ containers
Profit made = \$80
 \therefore Sale of Cupcakes = $\$160 + \80
= \$240
1 Container = $\$240 \div 40 = \6

28) 4 pieces string = 70cm
1st piece string = 23cm
2nd piece string = 8cm
3rd piece string = $5\text{cm} + 8\text{cm} = 13\text{cm}$
4th piece string = $23\text{cm} + 3\text{cm} = 26\text{cm}$
Length of string left = $70\text{cm} - (23 + 26)$
= $70\text{cm} - 49\text{cm}$
= 21cm
 $21\text{cm} - 5\text{cm}$ (for piece 3) = 16cm
 $16\text{cm} \div 2$ pieces = 8cm



30) 284×35

Paul can break the multiplier into 30 and 5. He will then multiply 234×30 and 234×5 . He will add the product of both Multiplication sums and the total will be The answer of 234×35 .

31) No. of Pupils scoring more than modal
Score of 75 = 6 pupils
 $\therefore \frac{6}{15} \times \frac{100}{1} = 40\%$

TEST 11

32) Box = 900 toys

$$\text{Children 4-9 yrs.} = \frac{4}{5} \times \frac{900}{1} = 720 \text{ toys}$$

$$\text{Babies} = 900 - 720 - 180 \text{ toys}$$

$$\begin{aligned} \text{Boy (children 4-9 yrs.)} &= 0.4 = \frac{4}{10} \times \frac{720}{1} \\ &= 288 \text{ toys} \end{aligned}$$

$$\begin{aligned} \text{Girls (children 4-9 yrs.)} &= 720 - 288 \\ &= 432 \text{ toys} \end{aligned}$$

$$\text{Girls} = 6 \text{ ages groups} = 432 \text{ toys}$$

$$\text{No. of Toys per group} = 432 \div 6 = 72 \text{ toys}$$

33)

4	9	2
3	5	7
8	1	6

34) 15^{+6} , 21^{-3} , 18^{+6} , 24^{-3} , 21^{+6} , 27^{-3} , 24^{+6} , **30^{-3}**

35) 3 tokens bought + 1 free = 4 tokens

$$36 \text{ tokens} \div 4 = 9 \text{ purchases made}$$

$$9 \times 3 \text{ tokens} = 27 \text{ tokens} \times \$6 = \$162$$

36) $100\text{m} - (15.75\text{m} + 20.75\text{m})$

$$100\text{m} - 36.5\text{m} = 63.5\text{m} \text{ between the two runners.}$$

37) Chance = 72 stamps

$$= \frac{8}{12} \text{ of Daniel's stamps}$$

$$\text{Daniel} = \frac{12}{8} \times \frac{72}{1} = 108 \text{ stamps}$$

Chance + Daniel

$$= 72 \text{ stamps} + 108 \text{ stamps} = 180 \text{ stamps}$$

38) Mean = 200 toys

$$\therefore \text{Total} = 200 \text{ toys} \times 4\text{mths} = 800 \text{ toys}$$

Missing bar for October

$$= 800 - (75 + 250 + 400)$$

$$= 800 - 725 = 75$$

December may have the highest number Of sales because Christmas is in that month.

39)



40)

Solid	Number of Vertices	Number of Faces	Number of Edges
Triangular-Based Pyramid	4	4	6
Cone	1	2	1
Triangular Prism	6	5	9

SECTION 3

41) Rotten Oranges = $\frac{1}{5}$

$$\text{Orange Juice} = \frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$$

$$\therefore \frac{8}{15} = 32 \text{ oranges}$$

$$\begin{aligned} \text{Oranges Purchased} &= \frac{15}{8} \times \frac{32}{1} \\ &= 60 \text{ oranges} \end{aligned}$$

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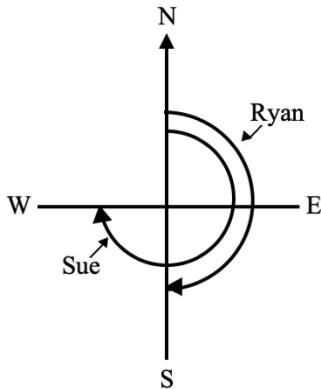
42) 322×24
 322×34

Marsha multiplied using a multiplier that was 10 more than the correct multiplier. She can multiply 322 by 10 and then subtract her answer by the product of 322×4 .

$$\begin{array}{r} 322 \\ \times 34 \\ \hline 10,948 \end{array} \quad \begin{array}{r} 322 \\ \times 24 \\ \hline 7,728 \end{array} \quad \begin{array}{r} 322 \\ \times 10 \\ \hline 3,220 \end{array}$$

$$\begin{array}{r} 10,948 \\ - 3,220 \\ \hline 7,728 \end{array}$$

43)



After the 4th turn they will both be facing North.

44) Mean = 80 marks

$$\text{Total} = 80 \times 4 = 320 \text{ marks}$$

$$\text{New Mean} = 80 - 3 = 77$$

$$\text{New Total} = 77 \times 5 = 385$$

$$\text{Creative Writing} = 385 - 320 = 65 \text{ marks}$$

$$\text{Science} = 85 + 10 = 95 \text{ marks}$$

$$\text{Lang. Arts and Soc. Studies}$$

$$= 320 - (85 + 95)$$

$$= 320 - 180 = 140$$

$$\text{Lang. Arts} = 140 \div 2 = 70 \text{ marks}$$

$$\text{Soc. Studies} = 70 \text{ marks}$$

45) Vol. of Cuboid = $L \times W \times H$

$$= 60\text{cm} \times 50\text{cm} \times 40\text{cm} = 120,000\text{cm}^3$$

$$\text{Vol. of Tank} = \frac{7}{8} \times \frac{120,000}{1} = 105,000\text{cm}^3$$

$$\text{Angel Fish} = 500\text{cm}^3$$

$$\text{Guppy} = 500\text{cm}^3 \div 2 = 250\text{cm}^3$$

$$\text{Volume needed for both fishes}$$

$$= 500\text{cm}^3 + 250\text{cm}^3 = 750\text{cm}^3$$

$$\text{No. of Fishes in tank} = 105,000\text{cm}^3 \div 750$$

$$= 140 \text{ of each fish}$$

$$\text{Maximum Guppy} = 140$$

$$\text{Maximum Molly} = 140$$