TEST 13

SECTION 1

1) 403,926
   Four Hundred and three thousand, nine
   Hundred and twenty-six

2) 357

3) $\frac{3}{100} = 0.03$

4) $\begin{array}{r} 3629 \\ -\ 2981 \\ \hline 648 \end{array}$

5) 2.12, 2.10, 2.01, 0.21

6) 6 × $100 = $600.00
   3 × $20 = $ 60.00
   5 × $5   = $ 25.00
   6 × .25 = $ 1.50
              $686.50

7) $6^3 \div 4 = (6 \times 6 \times 6) \div 4 = 216 \div 4 = 54$

8) $\frac{5}{7} = 45$
   $\therefore \frac{7}{5} \times \frac{45}{1} = 63$

9) 10 apple pies ÷ 8 = $\frac{10}{1} \div \frac{8}{1}$
   $= \frac{10}{1} \times \frac{1}{8} = \frac{10}{8} = 1\frac{2}{8} = 1\frac{1}{4}$

10) $\begin{array}{r} 1031 \\ 6\ \overline{|\ 6186} \end{array}$

11) Trapezium

12) $4.125 \div 2.50 = 4125g \div 250 = 16\frac{1}{2}$
    = 16 completely full bottles

13) Greg – 2mins 45 seconds

14) Cylinder

15) Length = 15cm
    $\therefore W = \frac{1}{3} \times \frac{15}{1} = 5$
    Area of rectangle = 15 × 5 = 75cm^2

16) 3-90° angles

17) Mean = (35 + 26 + 42 + 43 + 24 + 40) ÷ 6
          = 210 ÷ 6 = 35 runs

18) $\begin{array}{r} 8:05 \\ -\ 7:13 \\ \hline 0:52 \end{array}$
    Journey from home to school = 52 mins

19)

Transport	Tally	Frequency
Bus	||||	4
Taxi	＋＋＋ |	6
Walk	＋＋＋	5
Private Car	＋＋＋ ||||	9
		24

   Private Car = 24 – (4 + 6 + 5)
               = 24 – 15 = 9

20) Volume of Cube = 9cm × 9cm × 9cm
                   = 729cm^3

SECTION 2

21) Area of Square = 81cm^2
    $\therefore$ 1 side = $\sqrt{81}$ = 9cm

    Length of Rect. = 9cm × 2 = 18cm
    Width of Rect. = 9cm ÷ 2 = 4.5cm
    Perimeter of Rect. = (18 + 4.5) × 2
                       = 22.5 × 2 = 45cm

22) Karen = 648 stickers

Pam = 648 − 36 = 612 stickers

Karen + Pam = 648 + 612 = 1,260 stickers

Sue $\frac{2}{3} \times \frac{1,260}{1} = 840$

Total Stickers = 1,260 + 840 = 2,100

23)

Name of Solid	No. of Edges	No. of Flat Faces	No. of Vertices
Triangular Based Pyramid	6	4	4
Cuboid	12	6	8
Triangular Prism	9	5	6

24)
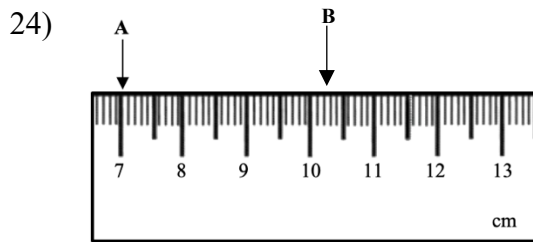
25) 9 Boxes = 139.5cm

1 Box = 139.5 ÷ 9 = 15.5cm in height

6 Boxes = 15.5 × 6 = 93cm

26) Working backwards – 18 +12 = 30

30 × 4 = 120

120 ÷ 8 = 15

Answer: 15

27) Vol. of 1 Cube = 2 × 2 × 2 = 8cm³

Vol. of Shape = 42 cubes × 8 = 336cm³

28) Boys = $\frac{2}{5}$ slices

Left = $\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$

Girls = $33\frac{1}{3}\% = \frac{1}{3}$ of $\frac{3}{5} = \frac{1}{5}$

Total Eaten by Boys + Girls = $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$

∴ Adults = = $\frac{5}{5} - \frac{3}{5} = \frac{3}{5}$ = 8 Slices

Total No. of Slices = = $\frac{5}{2} \times \frac{8}{1}$ = 20 Slices

Children at Party = 20 – 8 = 12 children

29)

Item	Cost Per Portion	Quantity	Cost
Fried Rice	$60.00	2 Portions	$120.00
Chinese Chicken	$110.00	$1\frac{1}{4}$ Portions	$137.50
Chow Mein	$80.00	$\frac{1}{2}$ Portion	$40.00
Pepper Shrimp	$205.00	$\frac{1}{2}$ Portion	$102.50
		Total	$400.00
		V.A.T. $12\frac{1}{2}\%$	$50.00
		Total Bill	$450.00

30)
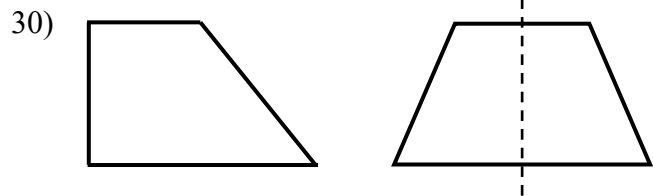
31) Cash Price = $3,500.00

Hire Purchase = $500 D/Payment

12 Instal = $300 × 12 = $3,600

Total Hire Purchase = $500 + $3,600

= $4,100

Savings = H.P – C.P = $4,100 – $3,500

= $600

She would save $600 if she bought it at the Cash Price

32) Mean = 75 runs

Total = 75 × 2 = 150 runs

New Mean = 50

∴ New Total = 50 × 3 = 150 runs

3rd Score Added = 150 – 150 = 0 runs

33)

Square
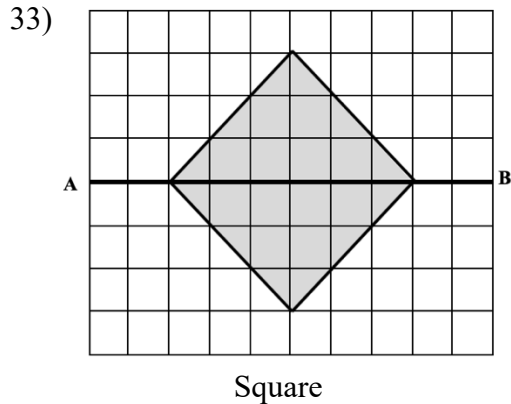
34) 1 model = 478 sticks
6 models = 478 × 6 = 2,868 sticks needed

1 bag = 475 sticks
6 bags = 2,850 sticks bought

2,868 – 2,850 = 18 sticks short

No, John needed to buy 1 more bag of sticks so that the group would have the remaining 18 sticks needed to complete the 6 models

35) Tyler   = $ 7.00
Grandmother = $ 8.00 +
Total Saved   = $15.00 each time

Amount Saved = $135.00
No. of times saved = $135 ÷ 15 = 9 times

Grandmother's contribution = $8 × 9
                                             = $72

36)

Transport	Tally	Frequency	Total Points
1	HHT LLLI	**9**	9
2	||	2	4
3	HHT HHT	10	30
4	||||	4	16
		Total Points	59

Modal Colour Green

37) 1st pair of shoes = $360
Discount 15% = $\frac{15}{100} \times \frac{360}{1}$ = $54 off
Sale Price = $320 – $54 = $266

2nd pair of shows $400
Discount 20% = $\frac{20}{100} \times \frac{400}{1}$ = $84 off
Sale Price = $400 – $80 = $320

Total Bill less V.A.T. = $306 + $320
                                    = $626
V.A.T. = $\frac{1}{8} \times \frac{\$626}{1}$ = $78.25
V.A.T. inclusive Bill = $626 + $78.25
                                = $704.25

38) Seats In Hall = 540
54%   = Unoccupied
100% – 15% = 85% = Occupied
People Seated = $\frac{85}{100} \times \frac{540}{1}$ = 459 people

39) Rajiv = 126 plants
Ben = 126 – 32 = 94 plants
Mikhail = 94 – 17 = 77 plants
Total plants = 126 + 94 + 77 = 297 plants
Mean =. 297 ÷ 3 = 99 plants

40) 8, 4, 0 and 3
3,048

SECTION 3

41) $1 US = $7 T.T.
∴ US for $4550 T.T. = $4550 ÷ 7
                                  = $650 US

Check Out Tue. 12th
Mon. 11th = $100 US
Sun. 10th = $150 US
Sat. 9th = $150 US
Fri. 8th = $150 US
Thur. 7th = $100 US
Checked in on Thurs. 7th

TEST 13

42) Arrival Time = 12:45p.m.
Time Spent In. Arima = 2hrs. 15mins
Departure Time = Hrs.   Mins.
           + 12   45
              2   15
          15 :   00

15:00 – 12:00 = 3:00p.m.

Journey Home
= Time Arrived Home – Departure Time
= 5:05
  – 3:00
    2:05 = 2hrs. 5 mins.

∴ Journey To Arima = 2hrs 5mins +
                    25 mins
  = 2hrs 30mins

Departure Time From Home
= Arr. Time To Arima – Length of Journey

        Hrs.   Mins.
         12   45
       – 2   30
       10 :   15 a.m.

43) $S.I = \frac{P \times R \times T}{100} = \frac{\$15{,}000 \times 12 \times 5}{100} = \$9{,}000$

Amt. To Repay = $15,000 + $9,000
             = $24,000
5 years = $24,000 to repay

∴ 1 year = $24,000 ÷ 5 = $4,800
36 payments = 3 yrs. × $4,800
            = $14,400 paid back

Remaining Bal. = $24,000 – $14,400
             = $9,600
Pay Off Bal.   = $9,600

44) Area of Sq. = S × S = 8 × 8 = 64cm²
Tri. S = $\frac{1}{4}$ Area of Sq.
      = $\frac{1}{4} \times \frac{64}{1}$ = 16cm²

Triangle S is an Isosceles Triangle. The lines in the Square that represent 2 sides of Triangle S are part of the 2 diagonal lines of symmetry for the square. This makes triangle S $\frac{1}{4}$ of the square. The area of Triangle S will therefore be $\frac{1}{4}$ the area of the square.

45) Mean = $80
Total = $80 × 4 weeks = $320
Missing Bar Week 3
= $320 – ($80 + $80 + $90)
= $320 – $250 = $70

Percent Saved in Weeks 3 + 4 = $70 + $90
= $\frac{\$160}{\$320} \times \frac{100}{1}$ = 50