TEST 2

SECTION 1

1) 789,568 = (7 × 100,000) + (**8** × 10,000) + (9 × 1,000) + (5 × 100) + (6 × 10) + (8 × 1)

2) Cube root of 216 = $\sqrt[3]{216} = 6$

3) 65% = $\frac{65}{100}$ = 0.65

4) 12.68 – 4.09 = 8.59

5) grams

6) √49 + √121 = 7 + 11 = 18

7) 1 Litre = 12 cups
∴ $2\frac{1}{4}$ Litres = $\frac{9}{4} \times \frac{12}{1}$ = 27 cups

8) 509 × 11 = 5,599

9) 468 books ÷ 12 classes = 39 books per class

10) 12,206 – 9,879 = 2,327

11) 12 Litres ÷ 8 bottles - 12,000ml ÷ 8 = 1,500ml

12) String A = 5.5cm
String B = 4.0cm
1.5cm

13) Triangular Prism

14) Mean = 82
Total = 82 × 4 tests = 328
Missing Score = 328 – (70 + 82 + 80) = 328 -232 = 96

16) 4 lollipops = $9.00
∴ 1 lollipop = $9.00 ÷ 4 = $2.25
$36.00 ÷ $2.25 = $\frac{36}{1} \div 2\frac{1}{4} = \frac{36}{1} \times \frac{4}{9} =$ 16 Lollipops

17) Missing Tally = 70 – (18 + 29 + 13) = 70 – 60 = 10
Hyundai = 𝍸 𝍸 = 10

18) Rectangular Based Prism = 5 Vertices

19) Ricky = 56 shells
Jill = 0.25 = $\frac{1}{4}$
$= \frac{1}{4} \times \frac{56}{1} =$ 14 shells
Ricky + Jill = 56 + 14 = 70 shells

20) 23 cookies ÷ $11\frac{1}{2}$ = 23 ÷ $11\frac{1}{2}$
$= \frac{23}{1} \div \frac{32}{2} = \frac{23}{1} \times \frac{2}{23}$
= 2
∴ 1 drawing = 2 cookies

SECTION 2

21) 1 Box = 24 doughnuts
Sister ate = 3 doughnuts
Brother ate = $\frac{2}{7}$ of (24 – 3) = $\frac{2}{7} \times \frac{21}{1}$ = 6 doughnuts
Mary and Father = 9 doughnuts
Total eaten = 3 + 6 + 9 = 18 doughnuts
Left = 24 – 18 = 6 doughnuts
Percent not eaten = $\frac{6}{24} \times \frac{100}{1}$ = 25%

22) Savings = \$450
Total Spent = \$150
Money Left = \$450 – \$150 = \$300
Decimal Fraction left = $\frac{\$300}{\$450} = \frac{2}{3} =$ $3\overline{)2^{0\,20\,20}}$ 0.666^{-}

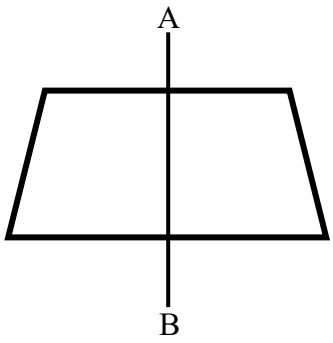
23) (N × N) + 17 = ? ÷ 3 = 22
∴ Go backwards = 22 × 3 = 66
66 – 17 = 49
√49 = 7

24) To Get Ready = 32 mins.
Travel = 27 mins.
Total Time = 32 + 27 = 59 mins.
Latest Time To Leave Home = $^{7}\cancel{8}:30^{+60}$ a.m.
– :59
7:31 a.m.

25) Cash Price = \$4,590
Hire Purchase = Down-payment of \$900
+ 12 monthly Installments of \$400 = 12 × \$400
= \$4,800
Hire Purchase = \$900 + \$4,800 = \$5,700

Savings = H.P. – C.P. = \$5,700 – \$4,590 = \$1,110

26)



Trapezium
1 Pair Parallel Sides
0 - 90° Angles

27) 1.03, $\frac{4}{25}$, 20%, 0.12

1.03, 0.16, 0.20, 0.12

Descending Order = 1.03, 20%, $\frac{4}{25}$, 0.12

28) 8 Shelves – Total
6 Shelves Packed
8 Boxes Used - 7 full boxes / 4 tins from 8th box
1 Box = 24 Tins
7 Full Boxes = 24 tins × 7 boxes = 168 tins
No. of Full Shelves = 6
No. of Tins per Full Shelf = 168 ÷ 6 = 28 tins
Shelf 7 = 4 tins
∴ Shelf 7 needs = 28 – 4 = 24 more tins
Shelf 8 needs = 28 tins
Total Tins needed = 24 + 28 = 52 tins

29) Length = 20cm / 1 space = 20cm ÷ 4 = 5cm
Distance of Path = 7 sides × 5cm = 35cm

30) Day 9 = 1
Day 8 = $1 \div 2 = \frac{1}{1} \times \frac{1}{2} = \frac{1}{2}$
Day 7 = $\frac{1}{2} \div 2 = \frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$
Day 6 = $\frac{1}{4} \div 2 = \frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$
Day 6 = $\frac{1}{8} = \frac{1}{8} \times \frac{100}{1} = 12\frac{1}{2}\%$

Working backwards we divide each day's answer by 2 which is the opposite of multiplying by 2 to double the lily's size.

31) 3 - 90° Turns

32) 1 Case = 18 bottles

∴ 15 Cases = 18 × 15 = 270 bottles

1 bottle cost = \$26

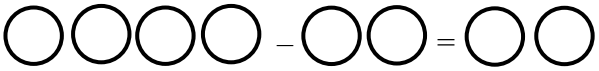
Sold = $66\frac{2}{3}\% = \frac{2}{3}$ of 270 bottles = $\frac{2}{3} \times \frac{270}{1} = 180$

Money Made from Bottles Sold = 180 × \$26

= \$4,680

33) 6 fewer marbles = 

Jim = 

∴ Tom =  =

$= \frac{6}{48} \times \frac{100}{1} = 12\frac{1}{2}\%$

34) Monthly Salary = \$16,000

Tax = 0.25 = $\frac{1}{4} \times \frac{16{,}000}{1}$ = \$4,000

Take Home Salary = \$16,000 – \$4,000 = \$12,000

Savings = $\frac{2}{3} \times$ \$12,000 = \$8,000

Left = \$12,000 – \$8,000 = \$4,000

Entertainment = 10% = $\frac{10}{100} \times \frac{\$4{,}000}{1}$ = \$400

Fraction of Monthly Salary spent on enter = $\frac{400}{16{,}000} = \frac{1}{40}$

35) Average = 85 pupils

∴ Total Pupils = 85 × 4 = 340 pupils

Mango Bar = 340 – (65 + 130 + 75) = 340 – 270 = 70

You first multiply the Average by the 4 flavours to get the total number of pupils in the survey. Then total the pupils shown on the graph and subtract the total from the total pupils in the survey. The answer represents the amount of pupils from mango.

36) Volume of Cuboid = L × W × H = 2 × 4 × 2 = 16cm^3
Model Has 26 Cuboids
Vol. of Model = 26 × 16 = 416cm^3

37) East + (90° + 90°) anti-clockwise = West
West + 90° anti-clockwise = South
South + (90° + 90°) clockwise = North
2 – 90° Turns clockwise

38) Vendor A = \$85.00 ÷ 4kg = \$21.25 per kg
Vendor B = \$29 per kg

Vendor A = 4kg @ \$21.25 = \$85.00
Vendor B = 3kg @ \$29.00 = \$87.00 plus 1 kg Free

Vendor A

39) Time shown = 3:05
Clock is 10 mins. fast
Correct time = 3:05 – 10 mins = 2:55
Trip to Market = 35 minutes
Time at Market = 1 hr 15 minutes
Trip Home = 30 minutes
Total Time =

	hr.	mins.
		35
+	1	15
		30
	1	80
		–60
	(1^{+1}) 2	: 20

	hr.	mins.
Time Arrived Home =	2	: 55
+	2	: 20
	5	: 15

40) Modal Colour = Pink

SECTION 3

41) Tim = 96 stickers

Ryan = $\frac{1}{4}$ less stickers = 96 – ($\frac{1}{4} \times \frac{96}{1}$) = 96 – 24 = 72

Mary = $1\frac{1}{2} \times (96 + 72) = \frac{3}{2} \times \frac{168}{1}$ = 252

Total Stickers = 420

Mary = $\frac{252}{420} \times \frac{100}{1}$ = 60%

42) $\frac{1}{3}$ of Class = Girls

$\frac{2}{3}$ of Class = Boys

Girls for tennis = $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

Boys for tennis = $\frac{2}{3}$

Tennis = $\frac{2}{3} + \frac{1}{6} = \frac{4}{6} + \frac{1}{6} = \frac{5}{6}$ = 25 pupils

Total No. of Pupils in class = $\frac{6}{5} \times \frac{25}{1}$ = 30 pupils

Boys = $\frac{2}{3} \times \frac{30}{1}$ = 20

43) Perimeter of Rectangle = (L + W) × 2
= (20cm + 12cm) × 2 = 32 × 2 = 64cm
Perimeter of 10 Rectangles = 64cm × 10 = 640cm
Wire Left = 60cm
Roll of Wire = 640cm + 60cm = 700cm

44) Obtuse Angle = Angle 'y'

An Obtuse Angle is more than 90° but less than 180°. One space on the clock

is $360° \div 12 = 30°$. Angle 'y' is 4 spaces = $30° \times 4 = 120°$

45) Mon. = 45
Tues. = 40
Wed. = 55
Fri. = 40
Total = 180

Mean = $180 \div 4 = 45$

$\therefore$ Thursday Bar = 45 students