TEST

24

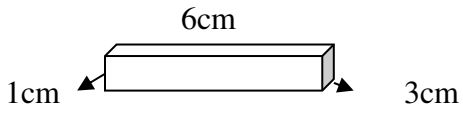
MATHEMATICS TEST 24 TIME- 75 MINUTES

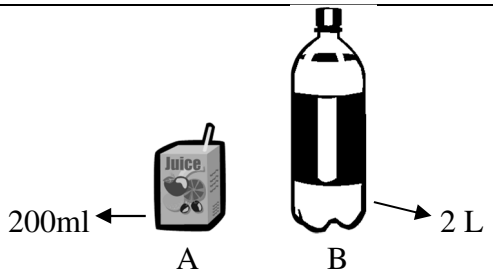
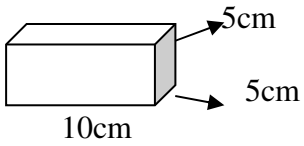
SECTION 1

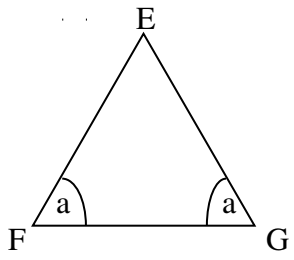
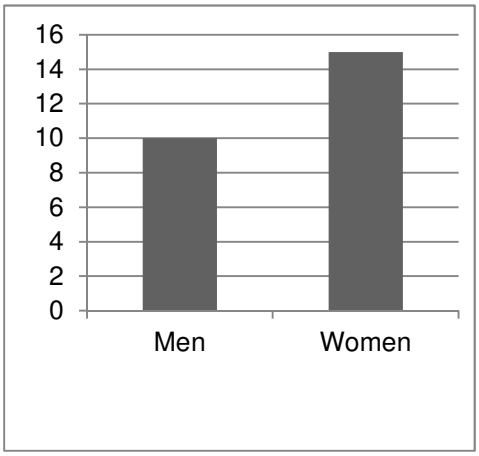
Each question is worth 1 mark. Answer ALL questions. Show ALL working in the Working Column.

No.	Items	Working Column	Mark
1.	Write in figures two hundred and nine thousand and forty five. Answer _____	**209 045**	
2.	0.37, 0.298, 0.111, 0.8 Which of the above shows the largest value? Answer _____	**0.8**	
3.	In a test of forty five problems, Lana got 36 correct. What percent did she get correct? Answer _____	$\frac{36}{45} \times \frac{100}{1}$ **= 80%**	
4.	What % of 54 is 36? Answer _____	$\frac{36}{54} \times \frac{100}{1}$ $= 66\frac{2}{3}\%$	
5.	What is the sum of 4.17, 1.1 and 2.19? Answer _____	**7.46**	

6.	Calculate : $7\frac{7}{10} - 2\frac{1}{2}$ Answer _____	$7\frac{7}{10} - 2\frac{1}{2}$ $5\ \frac{7-5}{10}$ $= \mathbf{5\frac{1}{5}}$	
7.	How much change from $30.00 should Pablo receive if he bought a sandwich for $12.50 and a cake for $2.50? Answer: $ _____	Change = $30–($12.50 + $2.50) = $30 - $15 = **$15**	
8.	Janice pressed the following digits on a cash register. The display was as shown: $6542.18 Write the display in words. Answer _____	**Six thousand five hundred and forty-two dollars and eighteen cents.**	
9.	What is 70192 to the nearest hundred? Answer _____	70192 ≈ **70200**	
10.	If the distance around a square is 32cm, what is the area? Answer _____cm^2	Perimeter = 32cm Side = 32 ÷ 4 = 8cm Area of square = S x S = 8 x 8 = **64cm^2**	

11.	Phillip left home at 7:35 a.m. He reached to school forty minutes later. At what time did Phillip reach to school? Answer _____a.m.	7: 35 + 0:40 = **8:15am**	
12.	What is the volume of the cuboid shown below?  Answer _____cm^3	Volume of cuboid = L x W x H = 6 x 3 x 1 = **$18cm^3$**	
13.	 The clock above is 5 minutes fast. To which number should the SHORT HAND be pointing? Answer _____	**11**	

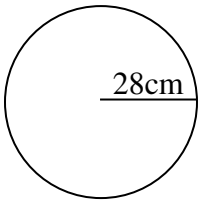
14.	 How many similar juice boxes as shown in Box A can be filled using Container B? Answer _____	2L ÷ 200ml = 2000 ÷ 200 **= 10 juice boxes**	
15.	Five cakes were cut into eighths for a party. Each child got 1 slice and at the end $\frac{1}{2}$ of a cake remained. How many children were at the party? Answer _____ children	1 cake = 8 slices 5 cakes = 8 x 5 = 40 Remained = 4 slices ($\frac{1}{2}$ x 8) No. of children = 40 – 4 **= 36 children**	
16.	Telephone Company B charges 65 cents for a 2 minute call, while Telephone Company D charges $1.50 for a 3 minute call. Which Company charges the cheaper rate? Answer:_____	Tel. Co. B = $0.65 ÷ 2 = $0.32 Tel. Co. D = $1.50 ÷ 3 = $0.50 **Telephone Company B charges the cheaper rate**	
17.	 How many square faces are there in the solid above? Answer:_____	**2 square faces**	

18.	 In the triangle above, the two angles labelled 'a' are equal. Which two sides of the triangle are equal? Answer _____	**EF and EG**	
19.	The bar graph below shows the number of men and women teaching at a school.  How many teachers are there on staff? Answer _____	Total = 10 + 15 = **25 teachers**	
20.	12, 16, 16, 17, 16, 15, 17 What is the MODE of the numbers above? Answer _____	Mode = **16**	

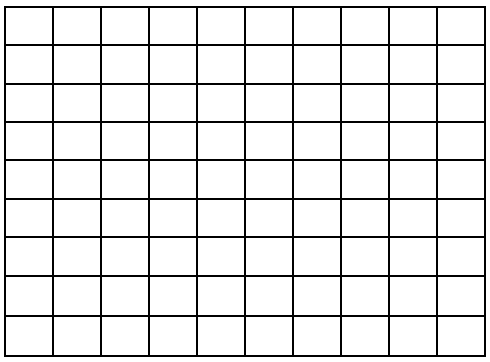
SECTION 2

Each question is worth either 2 or 3 marks. Answer ALL questions. Show ALL working in the Working Column.

No.	Items	Working Column	Mark
21.	A football team scored 274 goals in one season and 232 in the second season. a) How many goals were scored in the two seasons? Answer:_____(1) b) How many MORE goals were scored in season one than in season two? Answer:_____(1)	(a) Season 1 = 274 Season 2 = 232 Total = **506** (b) Difference = 274 – 232 = **42**	
22.	$\frac{11}{20}, \frac{7}{10}, \frac{3}{5}, \frac{1}{2}$ a) Arrange the fractions above in order, starting with the SMALLEST. Answer:_____(1) b) What is the difference between the largest and the smallest fractions? Answer _____ (2)	$\frac{11}{20}, \frac{7}{10}, \frac{3}{5}, \frac{1}{2}$ (a) $\frac{11}{20}$ $\frac{14}{20}$ $\frac{12}{20}$ $\frac{10}{20}$ = $\mathbf{\frac{1}{2}}$ $\mathbf{\frac{11}{20}}$ $\mathbf{\frac{3}{5}}$ $\mathbf{\frac{7}{10}}$ (b) $\frac{7}{10} - \frac{1}{2}$ $\frac{7 - 5}{10}$ =$\mathbf{\frac{1}{5}}$	
23.	One quarter of the sum of two numbers is 20. One of the numbers is 54, what is the other number? Answer _____ (3)	$\frac{1}{4}$ = 20 1 = 20 x 4 = 80 Other Number = 80 – 54 = **26**	

24.	The circle below has a radius of 28 cm. Calculate:  a) the length of the LONGEST line that could be drawn in the circle. Answer:_____(1) b) the circumference of the circle. Answer _____ (2)	(a) Longest line = diameter Diameter = 28 x 2 = **56cm** (b) Circumference = D x π $= \frac{56}{1} \times \frac{22}{7}$ = **176cm**	
25.	 Ravi bought a car marked at $15000.00 at a sale where a discount of 15% is given. Calculate how much Ravi paid for the car. Answer:$ _____ (3)	S.P = 100% Discount = 15% Paid = 85% (100% - 15%) $= \frac{85}{100} \times \frac{15000}{1}$ = **$12 750**	
26.	Round off the product of 5.8 and 2.3 to the nearest whole number. Answer:_____(2)	5. 8 x 2. 3 = 5 8 x 2 3 174 + 1160 1334 13.34 ≅ **13**	

27.



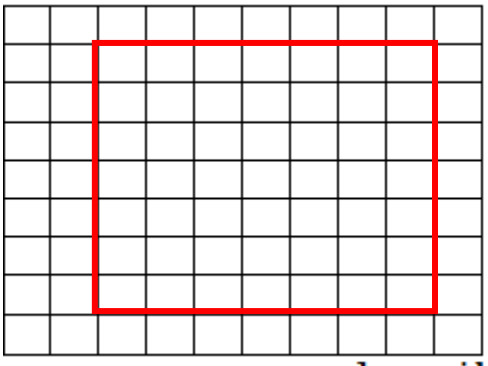
1 cm grid

a) On the grid above, draw a square with the area of 49cm^2

(1)

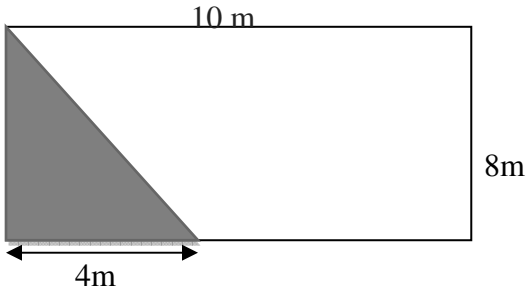
b) What is the perimeter of the square?

Answer _____
(1)

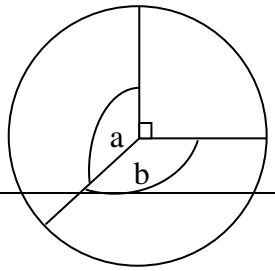


1 cm grid

(c) Perimeter of square = S x 4
= 7 x 4
= **28cm**

28.	The cost of a flash drive is $64.25. Adita had $49.50. If she saves $10.50 in one week, how much MORE must she save to buy the flash drive? Answer:_____(2)	Adita needs to save = $64.25 – ($49.50 + $10.50) = $64.25 - $60.00 = $64.25 - $60.00 = **$4.25**	
29.	 The diagram above represents Mrs. Smith's rectangular backyard. She placed a triangular pond to one side of the yard. The remaining area is covered with grass. a) What is the area of the pond? Answer:_____(1) b) What area of the backyard is covered with grass? Answer _____ (2)	(a) Area of triangle = $\frac{B \times H}{2}$ $= \frac{4 \times 8}{2}$ = **16cm²** (b) Grass = (10cm x 8cm) – 16cm² = 80cm² - 16cm² = **64cm²**	

30.	A discount of 20% was given on a couch set during a sale. a) If Mike paid $5040 for the couch. Calculate the original price of the set. Answer:_____(2) b) Calculate the amount of the discount given. Answer:_____(1)	(a) Paid = 80% or $\frac{4}{5}$ $\frac{4}{5}$ = $5040 1 = $\frac{5040}{1}$ x $\frac{5}{4}$ = **$6300** (b) Discount = $6300 - $5040 = **$ 1260**	
31.	Karla left out 20% of the questions on her test paper. There were 75 questions on the paper. a) Calculate the number of questions left out. Answer :_____(1) b) Each question answered correctly is awarded one mark. If Karla got 90% of those she answered correctly, how many marks did she score on the test? Answer:_____(2)	(a) No. of questions left out = 20% x 75 = 0.2 x 75 = **15 questions** (b) Karla did = 75 – 15 = 60 questions Correct = 90% x 60 = 0.9 x 60 = **54 marks**	
32.	A vendor bought 120 mangoes for $72.00 and sold them at 5 for $4.00. Calculate his profit on the transaction? Answer _____ (3)	C.P =$72 S.P = (120 ÷ 5) x $4 = 24 x $4 = $96 Profit = $96 - $72 = **$24**	

33.	Calculate in metres: m cm 30 4 - 14 96 _____ Answer:_____(2)	m cm 29 104 ~~30~~ ~~4~~ - 14 96 15 8 = **15.08m**	
34.	Melanie has three fifty dollar bills, five ten dollar bills, six five dollar bills and thirteen one dollar bills. The remaining notes are twenty dollar bills. If she has $323.00 in total, how many twenty dollar bills does Melanie have? Answer:_____(2)	3 x $50 = $150 5 x $10 = $50 6 x $5 = $30 13 x $1 = $13 Total = $150 + $50 + $30 + $13 = $243 Balance = $323 - $243 = $80 ÷ 20 = **4 -- $20 bills**	
35.	**LOVELY BAY RESORT** **Mon- Thur = $320 per night** **Fri- Sun = $420 per night** Mr. Mohammed and his family stayed at Lovely Bay Resort from Wednesday to Monday. Calculate how much they spent in total, if they also rented four kayaks on Sunday at a cost of $30.00 each. Answer:$_____(3)	Wednesday & Thursday & Monday = $320 x 3 = $960 Friday + Saturday + Sunday = $420 x 3 = $1260 4 Kayaks = $30 x 4 = $120 Total = $960 + $1260 + $120 = **$2340**	
36.	 	$a + b + 90^0 = 360^0$ $a + b = 360^0 - 90^0$ $a + b = 270^0$ $b = 270^0 \div 2$ $b = \mathbf{135^0}$	

If angle **a** is equal to angle **b**, calculate the size of the angle formed at **b**.

Answer:_____(2)

37. Complete the table below to show the properties of two solids.

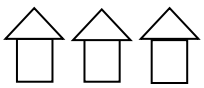
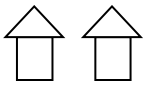
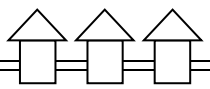
Solids	# of faces	# of Edges	# of Vertices
Cuboid	_____	12	8
_____	6 square	12	8

(2)

Cuboid = **6 faces**

Cube

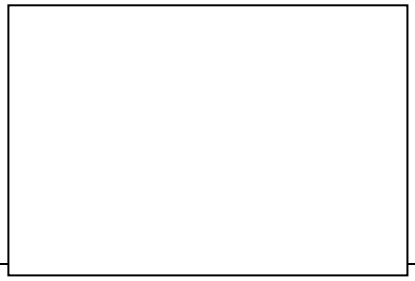
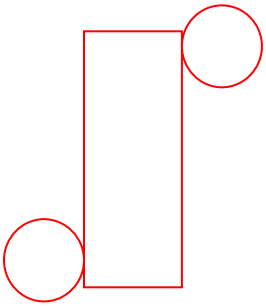
38. The pictograph shows the number of houses in four different villages of a country.

VILLAGE 1	
VILLAGE 2	
VILLAGE 3	
VILLAGE 4	

 = 150

8  = 150 x 8
= 1200

Village 3 = 1800 – 1200
= **600**
= 600 ÷ 150
= 4

	 Represents 150 houses. There are a total of 1800 houses in the four villages. a) How many houses are there in Village 3? Answer:_____(1) b) How many houses are there altogether in Villages 2 and 4? Answer:_____(1) c) What is the average number of houses in the country? Answer:_____(1)	(b) Village 2 and 4 = 5 x150 = **750 houses** (c) Average = 1800 ÷ 4 = **450**	
39.	 (a) What is the name of the solid shown above? Answer:_____(1) (b) Draw the net to show the solid above. 	(a) **Cylinder** (b) 	

(1)

40. The incomplete tally chart shows the favourite food of Standard five pupils.

FOOD	TALLY	FREQUENCY
K.F.C	𝍸 𝍸 |||	13
Pizza	|||	3
Roti		12

a) Draw the tally for the number of students who like roti.

(1)

b) How many children are in this Standard 5?

Answer:_____(1)

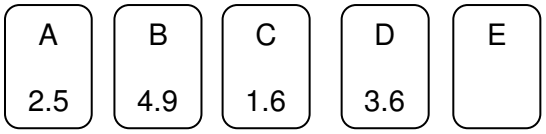
(a) ~~𝍸~~ ~~𝍸~~ **11**

(b) 13 + 3 + 12 = **28 students**

SECTION 3

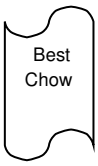
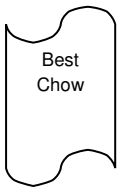
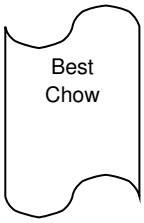
Each question is worth 5 marks. Answer ALL questions. Show ALL working in the Working Column.

41.	At a show, 40% of the audience consisted of men, 25% women and there were 140 children. (a) How many persons attended the show? Answer _____ (3) (b) How many more men than women were there at the show? Answer _____ (2)	(a) M + W = 40% + 25% = 65% Children = 100% - 65% = 35% $\frac{35}{100} = \frac{7}{20}$ $\frac{7}{20} = 140$ $1 = \frac{140}{1} \times \frac{20}{7}$ **= 400 persons** (b) Men – Women = 40% - 25% = 15% $\frac{15}{100} \times \frac{400}{1}$ **= 60 more men**	

42.	A decimal number is printed on four of the five cards shown below.  a) Arrange the four printed cards in order of size, starting with the smallest. Answer _____ (1) b) Using the answer from part (a), what number should be printed on the fifth card? Answer _____ (2) c) Which THREE of the five cards will give a total of 11? Answer _____ (2)	(a) **1.6 2.5 3.6 4.9** (b) **6.4** (c) **2.5 3.6 4.9**	

43.	Two pieces of wire are used separately to make a circle and a square. If the diameter of the circle is 21cm. Calculate: (a) Its circumference. Answer _____ (2) (b) The length of one side of the square. Answer _____ (1) (c) The area of the square. Answer _____ (2)	(a) Circumference = D x π $= \frac{21}{1} \times \frac{22}{7}$ **= 66cm** (b) Side of square = 66 ÷ 4 **= 16.5cm** (c) Area of square = S x S = 16.5 x 16.5 **= 272.25cm^2**	

44. Dog chow is sold in the three sizes shown below.

S	M	L
		
150g $ _____	300g $ 10.00	____ g $15.00

Packets are priced in proportion to the mass available.

a) What would be the mass of Pack L?

Answer _____ (1)

b) What would be the price of Pack S?

Answer _____ (1)

c) What is the combined weight of the three packs in kilograms?

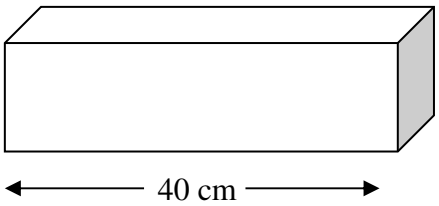
Answer _____kg (3)

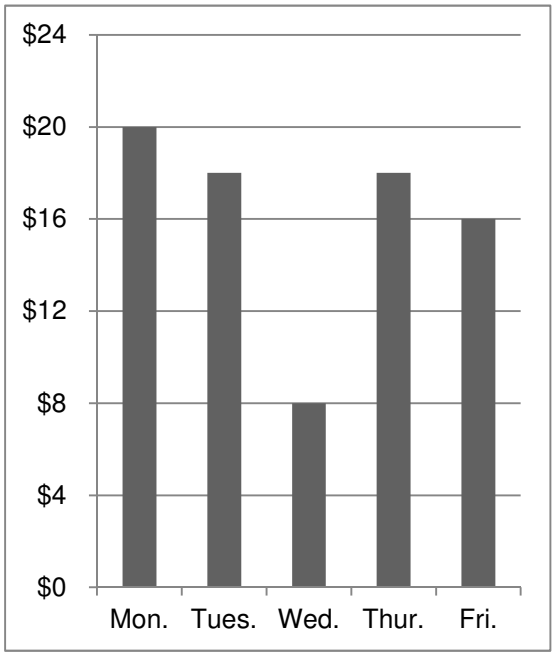
(a) 300g = $10
150g = $10 ÷ 2
= $5
Packet L = 300 + 150
= **450g**

(b) Packet S = $10 ÷ 2
= **$5.00**

(c) 150 + 300 + 450 = 900g

900 ÷ 1000 = **0.9kg**

45.	The diagram shows a cuboid with 2 square faces.  a) How many faces are rectangular? Answer _____ (1) b) How many edges have a length of 40cm? Answer _____ (1) c) The volume of the cuboid is $80cm^3$. It is cut into identical cuboids each of volume $10cm^3$. How many smaller cuboids can be obtained? Answer _____ (1) d) What is the length of EACH smaller cuboid? Answer _____ (2)	(a) **4 rectangular faces** (b) **4 edges have a length of 40cm** (c) $80cm^3 \div 10cm^3$ **= 8 smaller cuboids** (d) $40cm \div 8 =$ **5cm**	

46.	The bar graph below shows how Stacy spent her daily allowance of $20.00.  (a) Which day did Stacy spend all her allowance? Answer _____ (1) (b) Stacy saved the money that she did not spend. On which day did she save the most money? Answer _____ (2) (c) How much did she save in all for the week? Answer _____ (2)	**(a) Monday** **(b) Wednesday** (c) Tues = $2 Wed. = $12 Thur. = $2 Fri. = $4 Total Saved = 2 + 12 + 2 + 4 = **$20**	
	END OF TEST 24		