

# TEST

7

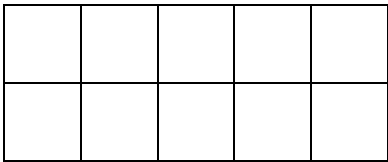

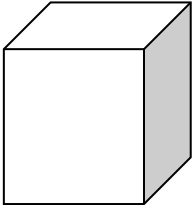
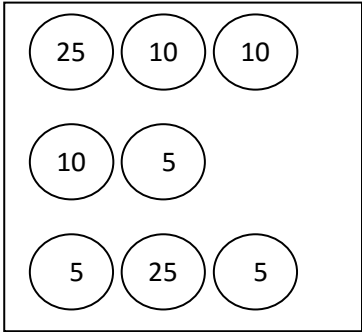
# MATHEMATICS TEST 7

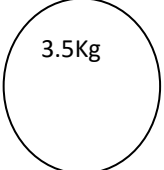
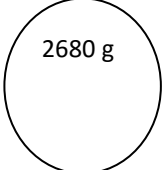
# TIME- 75 MINUTES

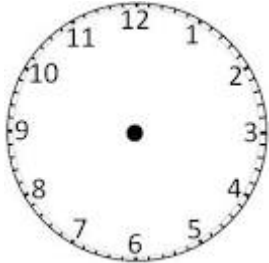
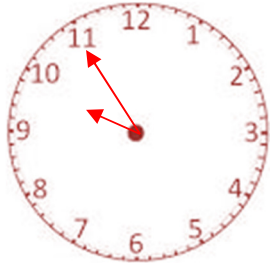
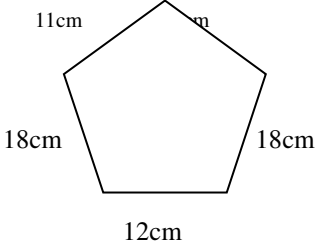
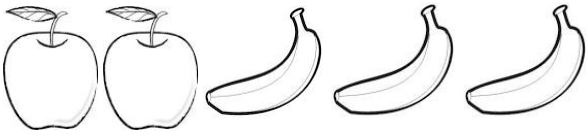
## SECTION 1

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

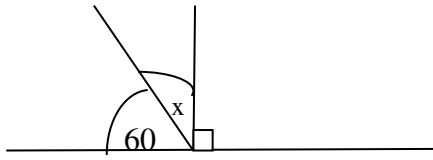
No.	Items	Working Column	Marks
1.	What is the place value of the digit 7 in the number 872 156?  Answer: _____	<b>TEN OF THOUSANDS</b> <b>TEN THOUSANDS</b>	
2.	Find the difference between 1354 and 869.  Answer: _____	<b>485</b>	
3.	Express 50% as a fraction in its LOWEST terms.  Answer: _____	$\frac{50}{100} = \frac{1}{2}$	
4.	Write the number 306 to the NEAREST hundred.  Answer: _____	<b>300</b>	
5.	MULTIPLY: 5.04 X 0.6  Answer: _____	$5.04 \times 0.6$ $= 504 \times 6$ $= 3024$ $= \mathbf{3.024}$	

<p>6.</p>	<p>Shade <math>\frac{4}{5}</math> of the shape below.</p> 		
<p>7.</p>	<p>A football team played 12 games. The team lost 1 game, drew 2 and won the others. Write the number of games they WON as a decimal.</p> <p>Answer: _____</p>	<p>Total games played = 12          Won = 9 ( 12 - 3)          Fraction = <math>\frac{9}{12}</math>          Decimal = 0.75</p>	
<p>8.</p>	<p>How many vertices are there in the cube?</p>  <p>Answer: _____</p>	<p>8</p>	
<p>9.</p>	<p>Aaron has the coins shown in the box below.</p>  <p>How much money does he have in TOTAL?</p> <p>Answer: _____</p>	<p>Total = 25+10+10+10+5+5+25+5          = 95c or \$ 0.95</p>	

<p><b>10.</b></p>	<p>4.36 kilograms = _____ grams</p> <p>Answer: _____ grams</p>	<p><math>4.36 \times 1000</math> <math>= 4360 \text{ g}</math></p>	
<p><b>11.</b></p>	<p>Ria left home at 8:50 a.m and returns 11 hours later. At what time did Ria return home?</p> <p>Answer: _____</p>	<p><b>7 : 50 pm</b></p>	
<p><b>12.</b></p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Bowl A</p> </div> <div style="text-align: center;">  <p>Bowl B</p> </div> </div> <p>By how much is bowl A heavier than bowl B?</p> <p>Answer: _____ g</p>	<p><math>\text{Bowl A} - \text{Bowl B} = 3500 - 2680</math> <math>= 820 \text{ g heavier}</math></p>	
<p><b>13.</b></p>	<p>How many pieces of rope, each 30cm long can be cut from a piece of rope 3.6m long?</p> <p>Answer: _____ pieces</p>	<p><math>3.6 \text{ m} = 360 \text{ cm}</math> <math>\text{Pieces that can be cut} = 360 \div 30</math> <math>= 12 \text{ pieces}</math></p>	

<p><b>14.</b></p>	<p>Jimmy runs <b>THREE</b> laps around the playground. He starts at 9:10am and takes 15 minutes to run each lap.</p> <p>Draw the time he finishes on the clock below:</p>  <p>Answer: _____</p>	<p>1 lap = 15 mins  3 laps = 15 x 3  = 45 mins</p> <p>Started = 9 : 10  3 laps = <u>   </u> : 45  <u>9 : 55</u> am</p> 	
<p><b>15.</b></p>	<p>Calculate the perimeter of the polygon.</p>  <p>Answer: _____</p>	<p>Perimeter of polygon =  12 + 18 + 18 + 11 + 11  = <b>70 cm</b></p>	
<p><b>16.</b></p>	 <p>Apples                      Bananas  2 for \$5.00                  3 for \$10.00</p> <p>Mummy buys 6 apples and 3 bananas. How much does she spend?</p> <p>Answer: _____</p>	<p>2 apples = \$5  1 apple = <math>\frac{5}{2}</math>  6 apples = <math>\frac{5}{2} \times 6</math>  = \$ 15</p> <p>3 bananas = \$10</p> <p>Total Spent = \$15 + \$10  = <b>\$25</b></p>	

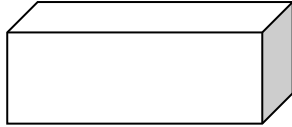
17. What is the value of the  $x$ ?



Answer: \_\_\_\_\_

$$\begin{aligned} x^\circ &= 180^\circ - (60^\circ + 90^\circ) \\ x^\circ &= 180^\circ - 150^\circ \\ x^\circ &= 30^\circ \end{aligned}$$

18.



This garden box is 12cm long and 5cm wide. If it contains  $120\text{cm}^3$  of soil, what is the depth of the soil in the box?

Answer: \_\_\_\_\_ cm

$$\begin{aligned} \text{Height of box} &= \frac{\text{Volume}}{\text{L} \times \text{W}} \\ &= \frac{120}{12 \times 5} \\ &= \frac{120}{60} \\ &= 2\text{cm} \end{aligned}$$

19. The table below shows subjects studied by Standard five pupils.




Subject studied	Number of pupils
Mathematics	15
Grammar	18
Science	19
Social Studies	20

Calculate the mean.

Answer \_\_\_\_\_ pupils

$$\begin{aligned} \text{Mean} &= \frac{\text{Sum}}{\text{N}(n)} \\ &= \frac{15 + 18 + 19 + 20}{4} \\ &= \frac{72}{4} \\ &= 18 \text{ pupils} \end{aligned}$$

20. The table below shows the number of runs scored in 4 cricket matches.

Match	Runs scored
1	
2	
3	
4	

 Represents 3 runs

The team scored a total of 36 runs. Complete the table to show the number of runs scored in match 4.

Answer: \_\_\_\_\_

$$36 \div 3 = 12 \quad \text{smiley face}$$

$$= 12 - 8$$

$$= 4$$

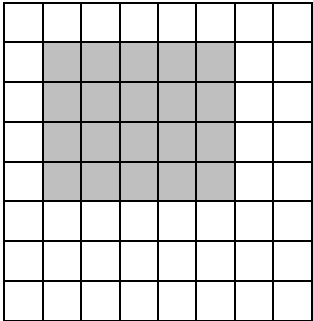


## SECTION 2

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

No.	Items	Working Column	Marks
21.	A bus travels 30 kilometres in 10 minutes. How far will the bus travel in 40 minutes?  Answer: _____ km (3)	$\begin{aligned} \text{Speed} &= \frac{\text{Distance}}{\text{Time}} \\ &= 30 \div 10 \\ &= 3 \text{ km} \\ 1 \text{ min} &= 3 \text{ km} \\ 40 \text{ mins} &= 3 \times 40 \\ &= \mathbf{120 \text{ km}} \end{aligned}$	
22.	A class comprising 30 students has 12 boys. What percentage of the class is girls?  Answer: _____ (2)	$\begin{aligned} \text{Girls} &= 30 - 12 \\ &= 18 \\ \text{Percentage} &= \frac{18}{30} \times 100 \\ &= \mathbf{60\%} \end{aligned}$	
23.	A jersey was priced at \$75.00 How much money do I save if I am given a 20% discount?  Answer: _____ (2)	$\begin{aligned} \text{Discount} &= 20\% \times \$75 \\ &= \frac{20}{100} \times 75 \\ &= \mathbf{\$ 15} \end{aligned}$	
24.	Three numbers when added gives a total of 965. If two of the numbers are 313 and 146, what is the third number?  Answer: _____ (2)	$\begin{aligned} 965 &= 313 + 146 + \square \\ 965 &= 459 + \square \\ 965 - 459 &= \square \\ \mathbf{506} &= \square \end{aligned}$	
25.	Jack had a piece of rope $5\frac{3}{5}$ m long. If he used $3\frac{1}{3}$ m of it, what length of the rope remains?  Answer: _____ m (2)	$\begin{aligned} &5\frac{3}{5} - 3\frac{1}{3} \\ &2\frac{9}{15} - 3\frac{5}{15} \\ &= \mathbf{2\frac{4}{15}} \end{aligned}$	



<p><b>26.</b></p>	<p>A school has 12 classes each containing 20 pupils. 4 pupils were absent in each class on Tuesday.</p> <p>Calculate the percentage of students PRESENT at school on Tuesday.</p> <p>Answer: _____ (3)</p>	<p>Total Population = <math>12 \times 20</math>  <math>= 240</math>  Present = <math>12 \times (20 - 4)</math>  <math>= 12 \times 16</math>  <math>= 192</math> present</p> <p>Percentage = <math>\frac{192}{240} \times \frac{100}{1}</math>  <math>= 80\%</math></p>	
<p><b>27.</b></p>	<p>Mummy poured water from 2 three-litre containers into glasses that could each hold 250ml of water. How many glasses of water will she fill?</p> <p>Answer: _____ (2)</p>	<p><math>1 - 2L = 2000\text{ml}</math>  <math>2 - 2L = 2000 \times 3</math>  <math>= 6000\text{ml}</math>  Glasses = <math>6000 \div 250</math>  <math>= 24</math> glasses</p>	
<p><b>28.</b></p>	<p>Find the product of 3 and 6.25.</p> <p>Answer: _____ (2)</p>	<p><math>3 \times 6.25</math>  <math>= 625 \times 3</math>  <math>= 1875</math>  <math>= 18.75</math></p>	
<p><b>29.</b></p>	<p>Calculate the area that is shaded below if each block represents 1 square centimeter.</p>  <p>Answer: _____ <math>\text{cm}^2</math> (2)</p>	<p>1 block = <math>1\text{cm}^2</math>  20 blocks = <math>1\text{cm}^2 \times 20</math>  <math>= 20\text{cm}^2</math></p>	

30.



(a) Write the time shown in digital notation.

Answer: \_\_\_\_\_ (1)

(b) Through how many degrees must the long hand move to point to the nine?

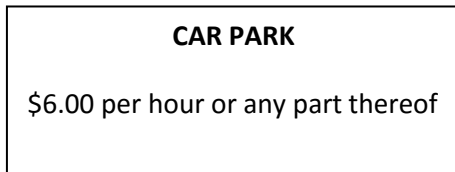
Answer: \_\_\_\_\_ degrees(2)

(a) **9 : 35**

(b) 1 space =  $30^{\circ}$

2 spaces =  $30^{\circ} \times 2$   
=  **$60^{\circ}$**

31.

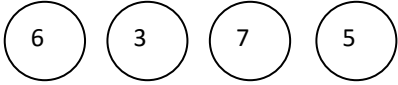


Mr. James parked his vehicle at 7:35am and returned at 1:15pm. How much did he have to pay?

Answer: \_\_\_\_\_ (3)

**7: 35 – 1:15 = 6 hours (Rounded)**

**Paid = 6 x \$6**  
**= \$ 36**

<p><b>32.</b></p>	<p>Four numerals are shown below.</p> <div style="text-align: center;">  </div> <p>Using each numeral only ONCE, write the</p> <p>(a) smallest four-digit odd number</p> <p>Answer: _____ (1)</p> <p>(b) largest four digit number</p> <p>Answer _____ (1)</p>	<p>(a) Smallest odd 4 digit number = <b>3567</b></p> <p>(b) Largest 4 digit number = <b>7653</b></p>	
<p><b>33.</b></p>	<p>Mary bought 4 dozens pens at \$4.00 each. She sold them for \$5.00 each.</p> <p>(a) How much profit did Mary make?</p> <p>Answer: _____ (2)</p> <p>(b) What was her profit percent?</p> <p>Answer: _____ (1)</p>	<p>(a) Profit = S.P – C.P = \$ 5 - \$ 4 = \$1 Number of pens bought = 4 x 12 = 48 Profit = 48 x \$1 = <b>\$48</b></p> <p>(b) Cost Price = 48 x \$4 = \$ 192 Profit Percent = <math>\frac{48}{192} \times \frac{100}{1}</math>  = <b>25%</b></p>	
<p><b>34.</b></p>	<p>Mrs. Singh borrows \$10 000.00 from the bank at a rate of 6% over 3 years. Calculate the amount she will have to repay after the three years have passed.</p> <p>Answer: _____ (3)</p>	<p><math>S.I = \frac{P \times R \times T}{100}</math> = <math>\frac{10000 \times 6 \times 3}{100}</math>  = \$1800</p> <p>Amount = \$10 000 + \$1 800 = <b>\$11 800</b></p>	

35. (a) Complete the table below.

Shape	Edges	Vertices	Faces
Cuboid		8	6

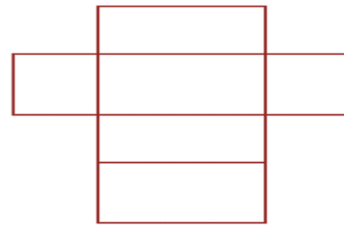
Answer: \_\_\_\_\_ (1)

(b) Draw a net of a cuboid in the space provided below.

Answer: \_\_\_\_\_ (2)

Shape	Edges	Vertices	Faces
Cuboid	<b>12</b>	8	6

(b)



36. Tim works an eight hour day and earns \$15 per hour.

(a) If he works for 6 days, how much money does he earn?

Answer: \$ \_\_\_\_\_ (1)

(b) When Tim works on Sundays, he is paid per hour at 1 ½ times the week's day rate. How much does Tim earn on a Sunday?

Answer: \_\_\_\_\_ (2)

$$\begin{aligned}
 \text{(a) } 1 \text{ hour} &= \$15 \\
 1 \text{ day (8 hours)} &= \$15 \times 8 \\
 &= \$120 \\
 6 \text{ days} &= \$120 \times 6 \\
 &= \mathbf{\$720}
 \end{aligned}$$

$$\begin{aligned}
 \text{(b) Sundays} &= \$15 \times 1.5 \\
 1 \text{ hour} &= \$22.50 \\
 8 \text{ hours} &= \$22.50 \times 8 \\
 &= \mathbf{\$180}
 \end{aligned}$$

37. Which of the following is the best bargain?

3kg Rice For \$13.50	4kg Rice For \$8.00	5kg Rice For \$9.00
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A

B

C

Answer: \_\_\_\_\_ (3)

$$3 \text{ kg} = \$13.50$$

$$1 \text{ kg} = \frac{\$13.50}{3}$$

$$= \$4.50$$

$$4 \text{ kg} = \$8$$

$$1 \text{ kg} = \frac{\$8}{4}$$

$$= \$2$$

$$5 \text{ kg} = \$9$$

$$1 \text{ kg} = \frac{\$9}{5}$$

$$= \$1.80$$

**∴ C is the best bargain**

38. A table and four chairs together cost \$440. The cost of each chair is \$60. Calculate the cost of the table.

Answer: \$ \_\_\_\_\_ (2)

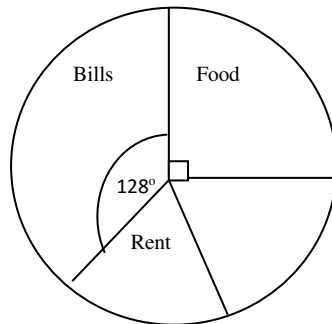
$$4 \text{ chairs} = 4 \times \$60$$

$$= \$240$$

$$\therefore \text{Table costs} = \$440 - \$240$$

$$= \$200$$

39. The pie chart below shows how a budget of \$640 was spent in a household.



How much money was spent on food?

Answer: \_\_\_\_\_ (2)

$$\text{Food} = \frac{1}{4} \times \frac{640}{1}$$

$$= \$160$$

**40.** Three bags of flour weighed the following:  
2kg 340g; 1kg 260g; 4kg 700g.

Calculate the total mass of the three bags.

Answer: \_\_\_\_\_ (2)

Total Mass =

$$\begin{array}{r} 2\text{kg } 340\text{g} \\ 1\text{kg } 260\text{g} \\ \underline{4\text{kg } 700\text{g} +} \\ 7\text{kg } 1300\text{g} \\ + 1\text{kg } - 1000\text{g} \\ \hline 8\text{kg } 300\text{g} \end{array}$$

**8kg 300g or 8.3kg**

### SECTION 3

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

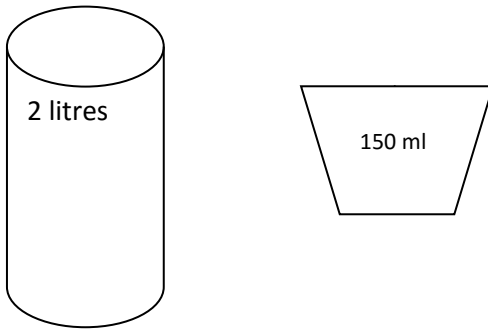
41.	<p>Mr. Bean bought a box of 250 apples. 50% were ripe, 20% were green and the remainder had to be disposed.</p> <p>(a) How many apples were ripe?</p> <p>Answer: _____ (1)</p> <p>(b) How many apples had to be disposed?</p> <p>Answer: _____ (2)</p> <p>(c) Mr. Bean paid \$50 for the box of apples. How much money did he lose?</p> <p>Answer: _____ (2)</p>	<p>(a) Ripe = 50% x 250 = <b>125 apples</b></p> <p>(b) Disposed = 30% (100% - 70%) = <math>\frac{3}{10} \times \frac{250}{1}</math> = <b>75 apples</b></p> <p>(c) 250 apples = \$ 50 1 apple = \$50 ÷ 250 = \$ 0.20</p> <p>Disposed = 75 apples Loss = 75 x \$0.20 = <b>\$ 15</b></p>	
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<p>42.</p>	<p>The price list at the cafeteria at Movie City is shown below.</p> <p><b>Price List</b></p> <table border="1" data-bbox="224 352 849 472"> <tr> <td>Popcorn</td> <td>\$7.25</td> </tr> <tr> <td>Soft Drink</td> <td>\$5.00</td> </tr> <tr> <td>Candy</td> <td>\$3.50</td> </tr> </table> <p>Sandy bought 2 popcorns, a soft drink and a candy. Steve bought 3 popcorns, 2 softdrinks and 2 candies.</p> <p>(a) What is the total amount spent by Sandy and Steve?</p> <p>Answer: _____ (2)</p> <p>(b) How much more than Sandy did Steve spend?</p> <p>Answer: _____ (2)</p> <p>(c) How many soft drinks can be bought with the difference in the amount spent by Sandy and Steve?</p> <p>Answer: _____ (1)</p>	Popcorn	\$7.25	Soft Drink	\$5.00	Candy	\$3.50	<p>(a) 2 popcorns = <math>\\$7.25 \times 2</math>  <math>= \\$14.50</math>  1 soft drink = <math>\\$5.00</math>  1 candy = <math>\\$3.50</math>  Total = <math>\\$23.00</math></p> <p>3 popcorns = <math>\\$21.75</math> (<math>\\$7.25 \times 3</math>)  2 soft drinks = <math>\\$10.00</math> (<math>\\$5 \times 2</math>)  2 candies = <math>\\$7.00</math> (<math>\\$3.50 \times 2</math>)  = <math>\\$38.75</math>  Total spent = <math>\\$23.00 + \\$38.75</math>  = <math>\\$61.75</math></p> <p>(b) Difference = <math>\\$38.75 - \\$23.00</math>  = <math>\\$15.75</math></p> <p>(c) Soft drinks = <math>\\$15.75 \div \\$5.00</math>  = <b>3 soft drinks</b></p>	
Popcorn	\$7.25								
Soft Drink	\$5.00								
Candy	\$3.50								
<p>43.</p>	<p>Ms. Sookoo has 120 crayons. If 20% of them are red, <math>\frac{3}{10}</math> are blue, and the rest are purple, calculate</p> <p>(a) the number of red crayons</p> <p>Answer: _____ (2)</p> <p>(b) the percentage of blue crayons.</p> <p>Answer: _____ (1)</p> <p>(c) the fraction of crayons that are purple</p> <p>Answer: _____ (2)</p>	<p>(a) Red = <math>20\% \times 120</math>  = <b>24 red crayons</b></p> <p>(b) Percentage blue = <math>\frac{3}{10} \times \frac{100}{1}</math>  = <b>30%</b></p> <p>(c) Purple = <math>100\% - (20\% + 30\%)</math>  = <math>50\%</math>  = <math>\frac{1}{2}</math></p>							



<p>44.</p>	<p>Students of the Standard One department are going on a field trip. 115 boys and 110 girls are going.</p> <p>(a) If one teacher must accompany every 15 students, how many teachers must go on the field trip?</p> <p>Answer: _____ teachers (2)</p> <p>(b) Buses are hired to transport everyone. If each bus holds 23 persons, how many buses will be needed?</p> <p>Answer: _____ (3)</p>	<p>(a) Total no. of pupils = <math>115 + 110</math> = 215 pupils</p> <p>No. of teachers = <math>215 \div 15</math> = <math>14 + 1</math> = <b>15 teachers</b></p> <p>(b) <math>215 + 15 = 230</math> persons No. of buses = <math>230 \div 23</math> = <b>10 buses</b></p>													
<p>45.</p>	<p>The weight of a group of athletes is shown in the table below:</p> <table border="1" data-bbox="224 1050 849 1201"> <tr> <td><b>Name:</b></td> <td><b>Ann</b></td> <td><b>Paul</b></td> <td><b>Eli</b></td> <td><b>Seeta</b></td> <td><b>Sean</b></td> </tr> <tr> <td><b>Weight: (kg)</b></td> <td>74</td> <td>64</td> <td>83</td> <td>83</td> <td>86</td> </tr> </table> <p>(a) What is the modal weight?</p> <p>Answer _____ kg (1)</p> <p>(b) Calculate the average weight of the group.</p> <p>Answer _____ kg (2)</p> <p>(c) If Paul leaves the group, what is the new mean weight of the new group?</p> <p>Answer _____ kg (2)</p>	<b>Name:</b>	<b>Ann</b>	<b>Paul</b>	<b>Eli</b>	<b>Seeta</b>	<b>Sean</b>	<b>Weight: (kg)</b>	74	64	83	83	86	<p>(a) Modal Weight = <b>83kg</b></p> <p>(b) Average Weight = <math>74 + 64 + 83 + 83 + 86</math> = <math>\frac{390}{5}</math> = <b>78 kg</b></p> <p>(c) If Paul leaves = <math>390 - 64</math> Total = <math>\frac{326}{4}</math> = <b>81.5 kg</b></p>	
<b>Name:</b>	<b>Ann</b>	<b>Paul</b>	<b>Eli</b>	<b>Seeta</b>	<b>Sean</b>										
<b>Weight: (kg)</b>	74	64	83	83	86										

46. The container in the diagram holds 2 litres of juice when filled.



Ronald fills 5 glasses with 150ml juice.

(a) How many milli-litres of juice is left in the bottle?

Answer: \_\_\_\_\_ ml (3)

(b) How many more FULL glasses can he pour from the remaining juice?

Answer: \_\_\_\_\_ (2)

$$\begin{aligned} \text{(a) } 5 \text{ glasses} &= 150 \times 5 \\ &= 750\text{ml} \end{aligned}$$

$$\begin{aligned} \text{Juice left} &= 2000 - 750 \\ &= \mathbf{1250 \text{ ml}} \end{aligned}$$

$$\begin{aligned} \text{(b) Full glasses} &= 1250 \div 150 \\ &= \mathbf{8 \text{ full glasses}} \end{aligned}$$

**END OF TEST 7**