

TEST

2

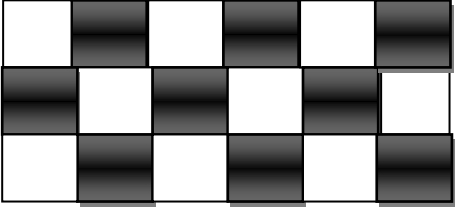
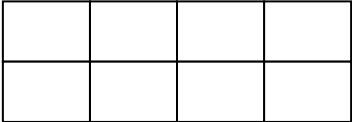
MATHEMATICS TEST 2

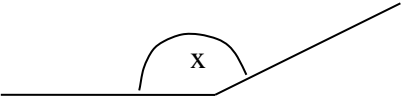

TIME- 75 MINUTES

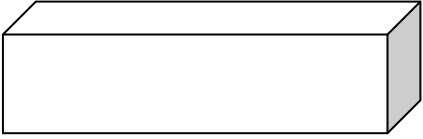
SECTION 1

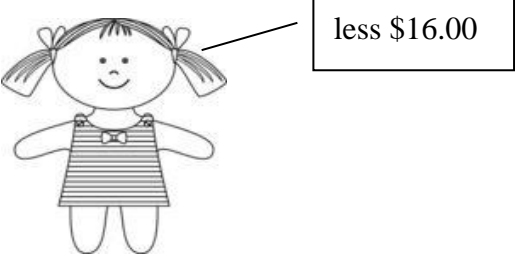
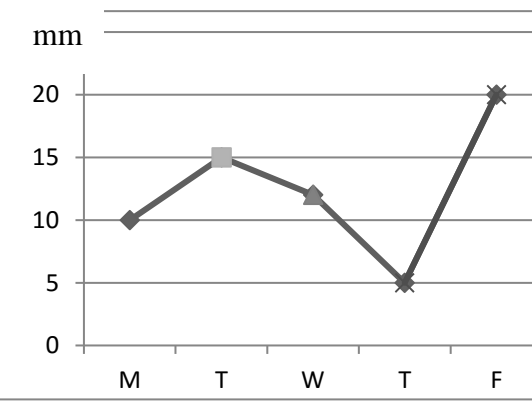
Each question is worth 1 mark. Answer ALL questions. Show ALL working in the Working Column.

No.	Items	Working Column	Marks
1.	Write 216 004 in words. Answer: _____ _____	Two hundred and sixteen thousand and four.	
2.	Estimate 9657 to the nearest ten. Answer: _____	$\begin{array}{r} 9657 \\ +1 \\ \hline 9660 \end{array}$	
3.	Calculate $16 \div 0.5$ Answer: _____	$\begin{aligned} 16 \div 0.5 \\ = 160 \div 5 \\ = 32 \end{aligned}$	
4.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> $>$ $<$ $=$ </div> <p>Use ONE of the symbols above to complete</p> $\frac{2}{3} \quad \square \quad \frac{5}{6}$ <p>Answer: _____</p>	$\frac{2}{3} = \frac{4}{6}$ $** \frac{2}{3} < \frac{5}{6}$	

5.	<p>What fraction is shaded?</p>  <p>Answer: _____</p>	<p>Total = 18 Shaded = $\frac{9}{18}$ = $\frac{1}{2}$</p>	
6.	<p>Calculate:</p> $\sqrt{4} \times 3^3 =$ <p>Answer: _____</p>	<p>$\sqrt{4} \times 3^3$ 2×27 = 54</p>	
7.	<p>What FRACTION of 96 is 32?</p> <p>Answer: _____</p>	<p>$\frac{32}{96} = \frac{1}{3}$</p>	
8.	<p>How many units make up the distance around the shape below?</p>  <p>Answer: _____</p>	<p>12 units</p>	
9.	<p>What is the value of the 8 in 24.837?</p> <p>Answer: _____</p>	<p>$\frac{8}{10}$ or 0.8</p>	

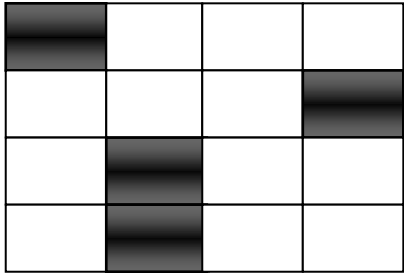
10.	<p>How many millimetres is equal to $\frac{1}{4}$ litre?</p> <p>Answer: _____</p>	250 ml	
11.	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; width: fit-content; margin: 0 auto;"> obtuse right acute </div> <p>Which word above names angle X below</p> <div style="text-align: center; margin: 10px 0;">  </div> <p>Answer: _____</p>	Obtuse	
12.	<p>The stamp below has a length of 4 cm and an area of 12 cm^2. What is its width?</p> <div style="text-align: center; margin: 10px 0;">  </div> <p style="text-align: right; margin-right: 20px;">4 cm</p> <p>Answer: _____</p>	$ \begin{aligned} \text{Width} &= \frac{\text{Area}}{\text{Length}} \\ &= \frac{12}{4} \\ &= \mathbf{3\text{cm}} \end{aligned} $	

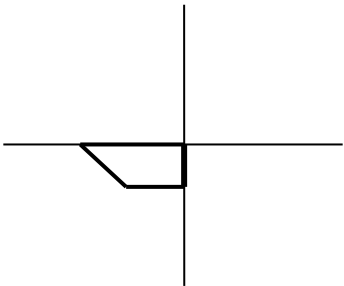
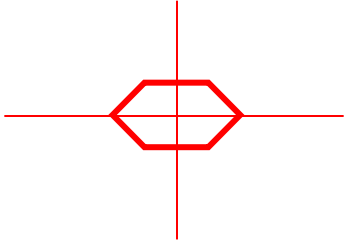
13.	Name the solid below.  Answer: _____	Cuboid	
14.	What is $\frac{2}{5}$ of 200? Answer: _____	$\frac{2}{5} \times \frac{200}{1}$ $= 80$	
15.	Calculate 2.4×0.6 Answer: _____	1.44	
16.	What is 0.25 as a PERCENT? Answer: _____	0.25×100 $= 25\%$	
17.	$\begin{array}{r} 214 \times \\ \underline{16} \end{array}$ Answer: _____	$\begin{array}{r} 214 \times \\ \underline{16} \\ 1284 + \\ \underline{2140} \\ \underline{3424} \end{array}$	

<p>18.</p>	<p>The doll below costs \$48.00 after the discount. What was the price BEFORE the discount?</p>  <p>Answer: _____</p>	<p style="color: red;">Selling Price = \$ 48 + \$ 16 = \$ 64</p>	
<p>19.</p>	<p>What is 20% of 80 cars?</p> <p>Answer: _____</p>	<p style="color: red;">$\frac{20}{100} \times \frac{80}{1}$ = 16 cars</p>	
<p>20.</p>	<p>The line graph shows the rainfall for five days.</p>  <p>How many mm of rain fell on Tuesday?</p> <p>Answer: _____</p>	<p style="color: red;">15 mm</p>	

SECTION 2

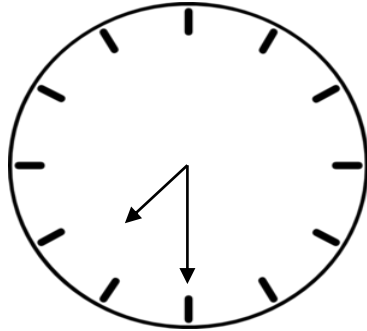
Each question is worth either 2 or 3 marks. Answer ALL questions. Show ALL working in the Working Column.

No.	Items	Working Column	Marks
21.	What is the difference between 2715 and 1389? Answer: _____ (2)	$\begin{array}{r} 2715 - \\ \underline{1389} \\ \underline{1326} \\ 1326 \end{array}$	
22.	For a concert each child is asked to sell 4 raffle sheets. How many raffle sheets were distributed to a class of 29 children? Answer: _____ (2)	$\begin{array}{l} 1 \text{ child} = 4 \text{ raffle sheets} \\ 29 \text{ children} = 4 \times 29 \\ = 116 \text{ raffle sheets} \end{array}$	
23.	What PERCENT of the shape is NOT shaded?  Answer: _____ (2)	$\begin{array}{l} \text{Total} = 16 \text{ units} \\ \text{Not Shaded} = 12 \text{ units} \\ \text{Percentage Not Shaded} = \frac{12}{16} \times \frac{100}{1} \\ = 75\% \end{array}$	

24.	<p>On Friday, a fruit vendor sold 120 apples, on Saturday half as many and on Sunday $\frac{2}{3}$ of Friday's sales. How many apples were sold in all?</p> <p>Answer: _____ (3)</p>	<p style="text-align: center;">Friday = 120 apples Saturday = 60 apples $\{ \frac{1}{2} \times \frac{120}{1} \}$ Sunday = 80 apples $\{ \frac{2}{3} \times \frac{120}{1} \}$ Total = 120 + 60 + 80 = 260 apples</p>	
25.	<p>Complete the pattern of numbers below.</p> <p style="text-align: center;">1 2 2 3 4 3 a 5 6 <input type="text"/> 5 b 7 8 <input type="text"/> 8 7 c 8 <input type="text"/> 12 12 10 8</p> <p>Answer: a _____ b _____ c _____ (3)</p>	<p style="text-align: center;">a = 6 b = 9 c = 10</p>	
26.	<p>$4\frac{4}{5} \div \frac{3}{10}$</p> <p>Answer: _____ (2)</p>	<p style="text-align: center;">$\frac{24}{5} \div \frac{3}{10}$ $\frac{24}{5} \times \frac{10}{3}$ = 16</p>	
27.	<p>The diagram below is formed AFTER a shape was folded TWO times, once along a vertical and a horizontal line of symmetry.</p> <p>Complete the diagram for the original shape.</p>  <p>Answer: _____ (3)</p>		

28.	$\frac{3}{5}$ of Jake's game cards equals $\frac{2}{3}$ of Anil's cards. Anil has 36 cards. How many cards does Jake have? Answer: _____ (3)	$\begin{aligned} \text{Anil} &= 36 \\ \frac{2}{3} \times \frac{36}{1} & \\ &= 24 \text{ cards} \\ \frac{3}{5} &= 24 \\ 1 &= \frac{24}{1} \times \frac{5}{3} \\ \text{Jake} &= \mathbf{40 \text{ cards}} \end{aligned}$	
29.	What is the sum of $\frac{3}{10}$ and $\frac{7}{100}$ as a DECIMAL number? Answer: _____ (3)	$\begin{aligned} \frac{3}{10} + \frac{7}{100} & \\ &= 0.3 + .07 \\ &= \mathbf{0.37} \end{aligned}$	
30.	Anisa has \$68.00 while Sumaya has \$12.00 LESS . How much money do both girls have altogether? Answer: _____ (2)	$\begin{aligned} \text{Anisa} &= \$ 68 \\ \text{Sumaya} &= \$ 56 (68 - 12) \\ \text{Total} &= \mathbf{\$124} \end{aligned}$	
31.	Any THREE circles running vertically, diagonally or horizontally add up to the same total. Fill in TWO missing numbers. <div style="display: flex; flex-direction: column; align-items: center; gap: 10px;"> <div style="display: flex; gap: 10px;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">8</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">3</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> </div> </div> <div style="display: flex; gap: 10px;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">5</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> </div> </div> <div style="display: flex; gap: 10px;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">6</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">7</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">2</div> </div> </div> Answer: _____ (2)	$\text{Total of any line} = 15 (6+7+2)$ $\begin{array}{ccc} \ast \ast & 8 & 3 & 4 \\ & 1 & 5 & 9 \\ & 6 & 7 & 2 \end{array}$	

32. Daddy left home at the time shown below and arrived at work 40 minutes later.



a) On the clock above, draw in the **NEW** position of the **MINUTE** hand.

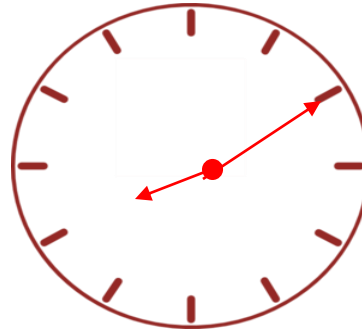
Answer: _____(1)

b) Through what angle did the minute hand turn?

Answer: _____(1)

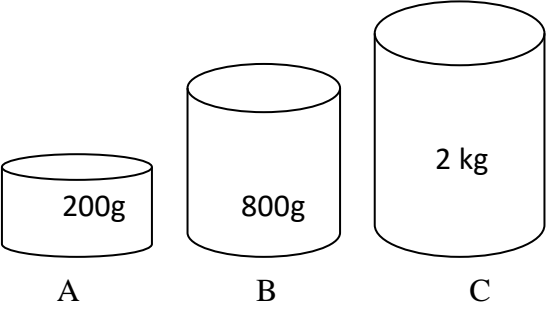
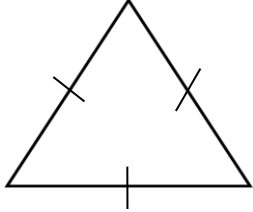
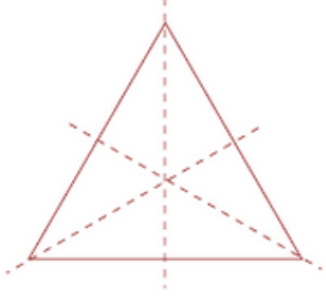
c) At what time did Daddy arrive at work?

Answer: _____ a.m. (1)

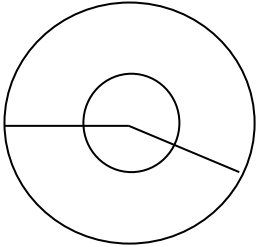
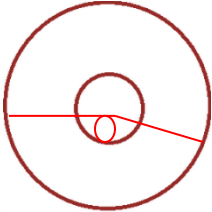


$$\begin{aligned} \text{(b) } 1 \text{ space} &= 30^\circ \\ 8 \text{ spaces} &= 30^\circ \times 8 \\ &= 240^\circ \end{aligned}$$

(c) 8:10

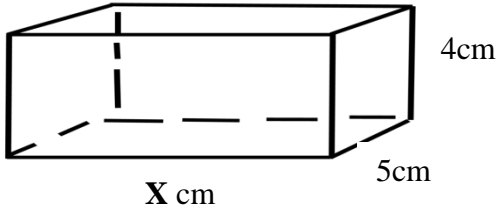
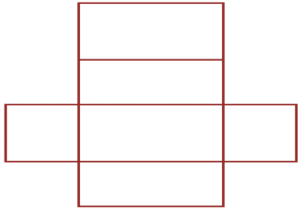
<p>33.</p>	<p>Chocolate syrup is sold in the cans shown below. The costs are in a proportion to the weight of the syrup.</p>  <p>A \$5.00</p> <p>B</p> <p>C 2 kg</p> <p>a) How much will container B cost?</p> <p>Answer: _____(1)</p> <p>b) How much will container C cost?</p> <p>Answer: _____(2)</p>	$200\text{g} = \frac{1}{5}\text{ kg}$ $\frac{1}{5}\text{ kg} = \5 $1\text{kg} = \$5 \times 5$ $= \$25$ $\frac{800}{1000} = \frac{4}{5}$ <p>(a) Can B = $\frac{4}{5} \times \frac{25}{1}$</p> $= \$20$ <p>(b) Can C = $\\$25 \times 2$</p> $= \$50$	
<p>34.</p>	<p>A roll of gift wrapping paper is 80 cm wide and 400 cm long. How many pieces, each 40 cm by 50 cm can be cut from the roll?</p> <p>Answer: _____(3)</p>	$\frac{80 \times 400}{40 \times 50}$ $= 16 \text{ pieces}$	
<p>35.</p>	 <p>a) Name the type of triangle shown above?</p> <p>Answer: _____(1)</p> <p>b) Draw in its lines of symmetry.</p> <p>Answer: _____(2)</p>	<p>(a) Equilateral Triangle</p> <p>(b)</p> 	

<p>36.</p>	<p>Wayne had 60 oranges. He gave $\frac{1}{3}$ of them to his cousin and $\frac{2}{5}$ to his friends. How many oranges does Wayne have left?</p> <p>Answer: _____(3)</p>	$\begin{aligned} \text{Cousin} &= \frac{1}{3} \times \frac{60}{1} \\ &= 20 \text{ oranges} \\ \text{Friends} &= \frac{2}{5} \times \frac{60}{1} \\ &= 24 \text{ oranges} \\ \text{Kept} &= 60 - (20 + 24) \\ &= 60 - 44 \\ &= \mathbf{16 \text{ oranges}} \end{aligned}$	
<p>37.</p>	<p>The mean weight of 3 heaps of sorrel is 21 kg. One of the heaps weighs 17 kg and another weighs 24 kg. What is the weight of the last heap?</p> <p>Answer: _____(3)</p>	$\begin{aligned} \text{Mean} &= 21 \text{ kg} \\ \text{Total} &= 21 \times 3 \\ &= 63 \text{ kg} \\ \text{Third Heap} &= 63 - (17 + 24) \\ &= \mathbf{22 \text{ kg}} \end{aligned}$	

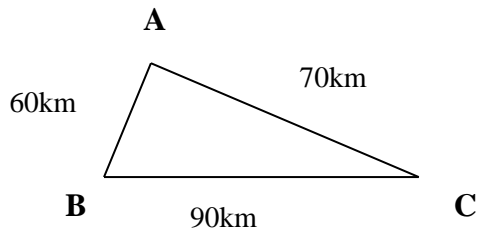
<p>38.</p>	<p>a) Label the OBTUSE angle 'O' in the circle below. Answer: _____ (1)</p>  <p>b) What is the name given to the remaining angle? Answer: _____ (1)</p>	<p>(a)</p>  <p>(b) Reflex Angle</p>	
<p>39.</p>	<p>Sanjay has \$1.86, made up of 25¢, 5¢ and 1¢ coins. What is the LEAST number of coins to make up his money? Answer: _____ (2)</p>	$ \begin{array}{r} \$1.86 - \\ \underline{\$1.75} \{ 7 - 25c \} \\ .11 - \\ \underline{.10} \{ 2 - 5c \} \\ \underline{.01} \{ 1 - 1c \} \end{array} $ <p>Total Number of Coins = 10</p>	
<p>40.</p>	<p>A box contains 40 chocolates. 30 of them are eaten. What percent of the chocolates is LEFT? Answer: _____ (2)</p>	$ \begin{array}{l} \text{Total} = 40 \\ \text{Left} = 10 (40 - 30) \\ \text{Percent} = \frac{10}{40} \times \frac{100}{1} \\ = 25\% \end{array} $	

SECTION 3

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

No.	Items	Working Column	Marks
41.	<p>The uncovered plastic container below holds 160 cm^3 of water when completely filled.</p> <div style="text-align: center;">  </div> <p>a) Find the length marked x. Answer: _____ (2)</p> <p>b) Draw the net of the plastic container in the space below.</p> <div style="border: 1px solid black; border-radius: 15px; height: 150px; width: 100%; margin: 10px 0;"></div> <p>Answer: _____ (3)</p>	<p>(a) $\text{Length} = \frac{\text{Volume}}{\text{W} \times \text{H}}$ $= \frac{160 \text{ cm}^3}{5 \times 4}$ $= \frac{160 \text{ cm}^3}{20\text{cm}}$ $= 8 \text{ cm}$</p> <p>(b)</p> <div style="text-align: center; margin: 20px 0;">  </div>	

42. The diagram shows the location of three towns labeled A,B,C.



a) Mitch travels from Town A to B and then to C. How many kilometres did he travel altogether?

Answer: _____ (2)

b) The journey from town A to B took 3 hours. At what speed was Mitch travelling?

Answer: _____ (1)

c) If Mitch travelled at this rate from town A through B, then C and back to A, how long, in **HOURS**, would the journey take?

Answer: _____ (2)

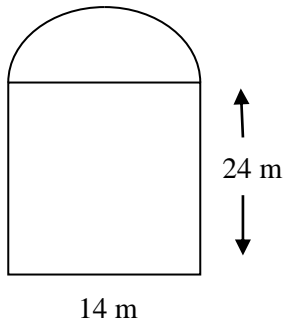
$$\begin{aligned} \text{(a) A to B} &= 90 + 60 \\ &= 150 \text{ km} \end{aligned}$$

$$\begin{aligned} \text{(b) Speed} &= \frac{\text{Distance}}{\text{Time}} \\ &= \frac{60}{3} \\ &= \mathbf{20 \text{ km/hr}} \end{aligned}$$

$$\begin{aligned} \text{(c) Total Distance} &= 60 + 90 + 70 \\ &= 220 \text{ km} \end{aligned}$$

$$\begin{aligned} \text{Time} &= \frac{\text{Distance}}{\text{Speed}} \\ &= \frac{220}{20} \\ &= \mathbf{11 \text{ hrs}} \end{aligned}$$

43. The diagram below shows a swimming pool.



a) What is the radius of the semi-circular end of the pool?

Answer: _____ (1)

b) Calculate the distance around the swimming pool.

Answer: _____ (2)

c) Lights are placed 7 m apart around the pool. How many lights are there?

Answer: _____ (2)

$$\begin{aligned}
 \text{(a) Radius} &= \frac{\text{Diameter}}{2} \\
 &= \frac{14}{2} \\
 &= 7\text{m}
 \end{aligned}$$

$$\begin{aligned}
 \text{(b) Circumference} \\
 \text{of semi-circle} &= \frac{1}{2} \{ D \times \pi \} \\
 &= \frac{1}{2} \left\{ \frac{14}{1} \times \frac{22}{7} \right\} \\
 &= 22\text{cm}
 \end{aligned}$$

Distance Around Pool=

$$\begin{aligned}
 &24+14+24+22 \\
 &= \mathbf{84\text{m}}
 \end{aligned}$$

$$\begin{aligned}
 \text{(c) Lights} &= 84 \div 7 \\
 &= \mathbf{12 \text{ lights}}
 \end{aligned}$$

44. The incomplete table shows the items Vikash bought at the candy shop.

Candy	Amount	Unit Cost	Total Cost
Candy Canes	3 boxes		\$24.00
Gummy Bears	$3\frac{1}{2}$ kg	\$7.00 per kg	
Lollipops		\$18.00 per dozen	\$ 9.00
Total Cost			\$57.50

a) Complete the table above by placing the **THREE** missing values.
Answer: _____ (3)

b) The lollipops Vikash bought were for 3 children. How much will lollipops for 21 children cost?
Answer: _____ (2)

(a)

$$\begin{aligned} \text{Candy Canes} &= \$ 24 \div 3 \\ &= \$ 8 \end{aligned}$$

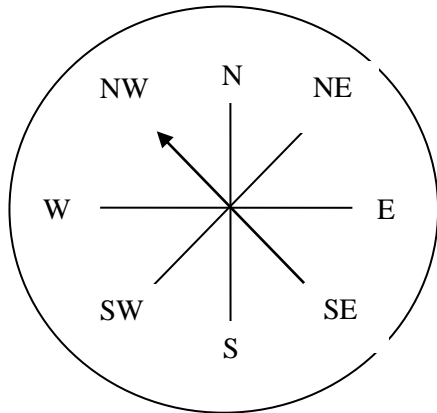
$$\begin{aligned} \text{Gummy Bears} &= \$ 7 \times 3.5 \\ &= \$ 24.50 \end{aligned}$$

$$\begin{aligned} \text{Lollipops} &= \frac{\$ 9}{\$ 18} \\ &= \frac{1}{2} \text{ kg} \end{aligned}$$

$$\begin{aligned} \text{(c) 3 children} &= \$ 9 \\ 1 \text{ child} &= \$ 3 (\$ 9 \div 3) \\ 21 \text{ children} &= \$ 3 \times 21 \\ &= \$ 63 \end{aligned}$$

<p>45.</p>	<p>Rajiv works at an ice-cream shop for 6 hours each day for 5 days per week. He is paid regular time at \$15.00 per hour. Last week he earned \$590.00 which included overtime pay at \$20.00 per hour.</p> <p>Calculate:</p> <p>(a) His regular wage for the week. Answer: _____ (2)</p> <p>(b) How much money he received in overtime pay. Answer: _____ (1)</p> <p>(c) The number of overtime hours Rajiv worked last week. Answer: _____ (2)</p>	<p>(a) 1 day = 6 x \$15 = \$ 90 5 days = \$ 90 x 5 = \$ 450</p> <p>(b) Overtime = \$ 590 - \$ 450 = \$ 140</p> <p>(c) Overtime Hours = $\frac{\\$ 140}{\\$ 20}$ = 7 hours</p>	
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46. The diagram below shows a compass.



a) In what direction is the compass pointing?

Answer: _____ (1)

b) Name the direction that is exactly **HALF** turn away?

Answer: _____ (1)

c) The compass makes a $\frac{3}{4}$ turn in a **CLOCKWISE** direction. In what direction does it now point?

Answer: _____ (3)

(a) **NW**

(b) **SE**

(c) **SW**

End of Test 2