STIRLING TUITION

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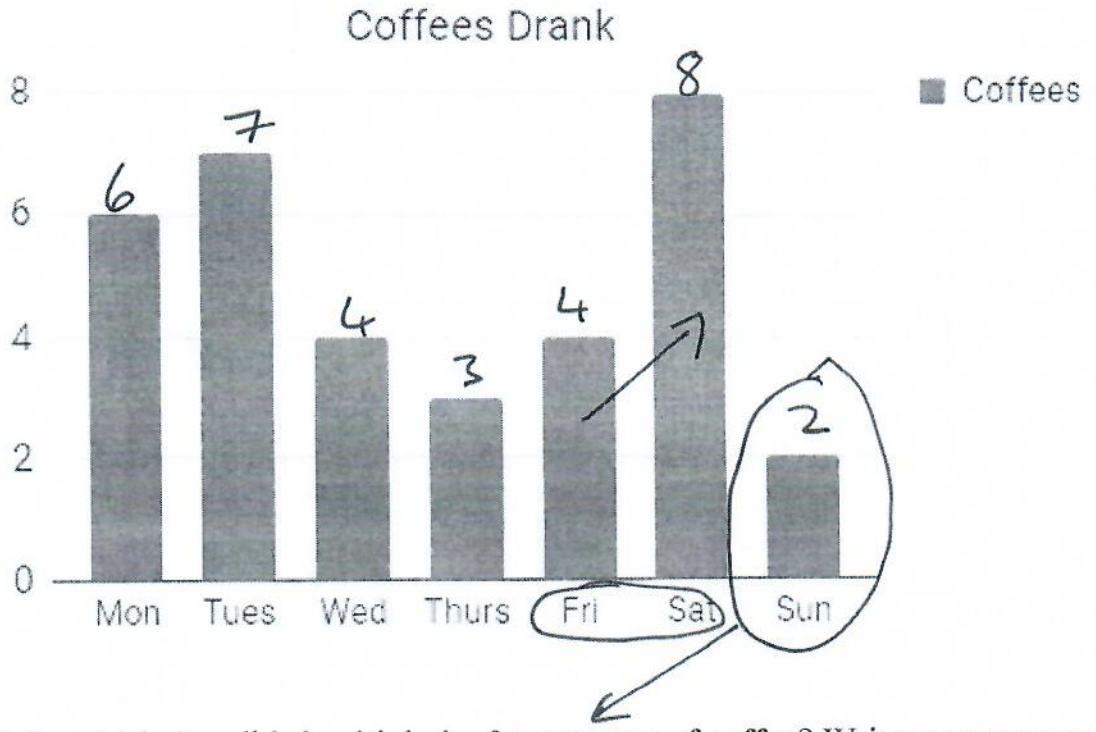
Lesson 23

Name: _____

Grace records the **number of coffees** she **drinks each day** for a week. She draws the graph below.



a) On which **day** did she drink the **fewest cups of coffee**? Write your answer in the space below.

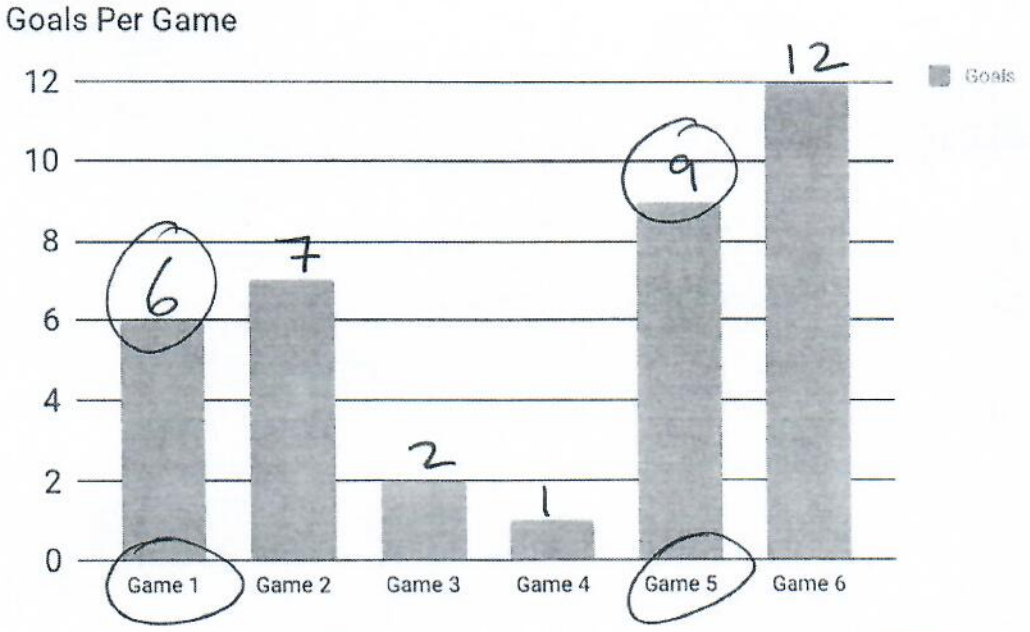
Sunday

b) Look again at the bar chart above. Over **two consecutive days** there is a **100% increase** in her coffee consumption. Write the names of the two days below.

Double

Friday and Saturday

Ben is playing for his local football team in a tournament. Over the day they play six games against different opposition. He decided to record the number of goals his team scores in the six matches and enters the results into a bar chart. Use the bar chart to answer the questions below.



a) How many goals did Ben's team score over the tournament? Write your answer in the space below.

$6 + 7 + 2 + 1 + 9 + 12$

$13 + 10 + 14 =$

$23 + 14 = 37$

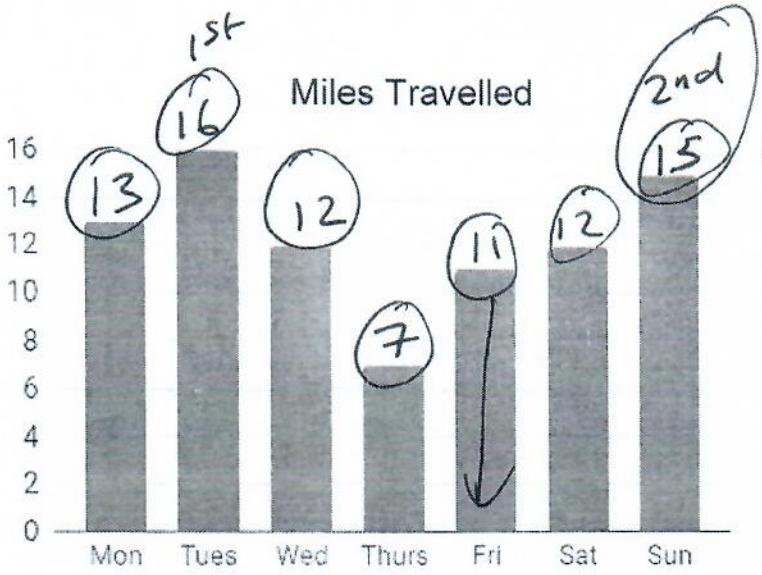
37 goals

b) In one of the games Ben's team scored ⅔ of the amount of goals than that of another game. Write your answer in the spaces below to make the sentence correct.

The amount of goals scored in game 1 was ⅔ of the amount of goals scored in game 5.

$\times 2 \div 3$ of $9 = 6$

Derek records the **number of miles** he **travels each day** for a week. He draws the graph below.



13 + 7 = 20
16 + 12 = 28
12 + 15 = 27
+ 75
11
86

a) On which **day** did he travel the **2nd most number of miles**? Write your answer in the space below.

Sunday

b) On which **day** did he travel the **2nd fewest number of miles**? Write your answer in the space below.

Friday

more than 12

Fewer than 15

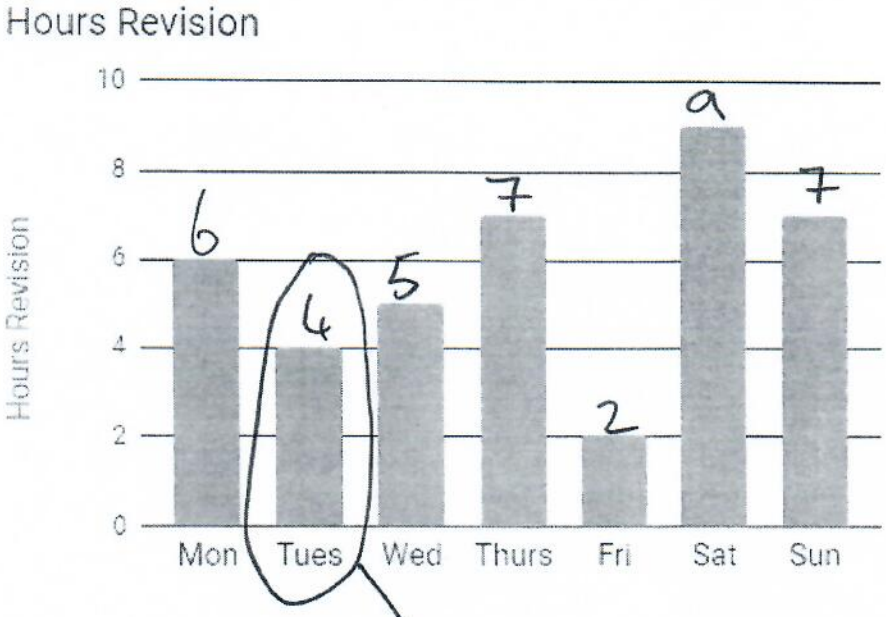
c) Which **day** had **more** miles than **Saturday**, but **fewer** miles than **Sunday**? Write your answer in the space below.

Monday

d) **How many** miles did Derek travel **in total** over the week? Write your answer in the space below.

86

For a **week (7 days)** Grace records the numbers of hours study she completes each day. Below is the bar chart which shows her results.



6 + 4 = 10
5 + 7 = 12
2 + 9 + 7 = 18
+ 10
40

a) How many hours of revision did she complete **in total over the week**? Write your answer in the space below.

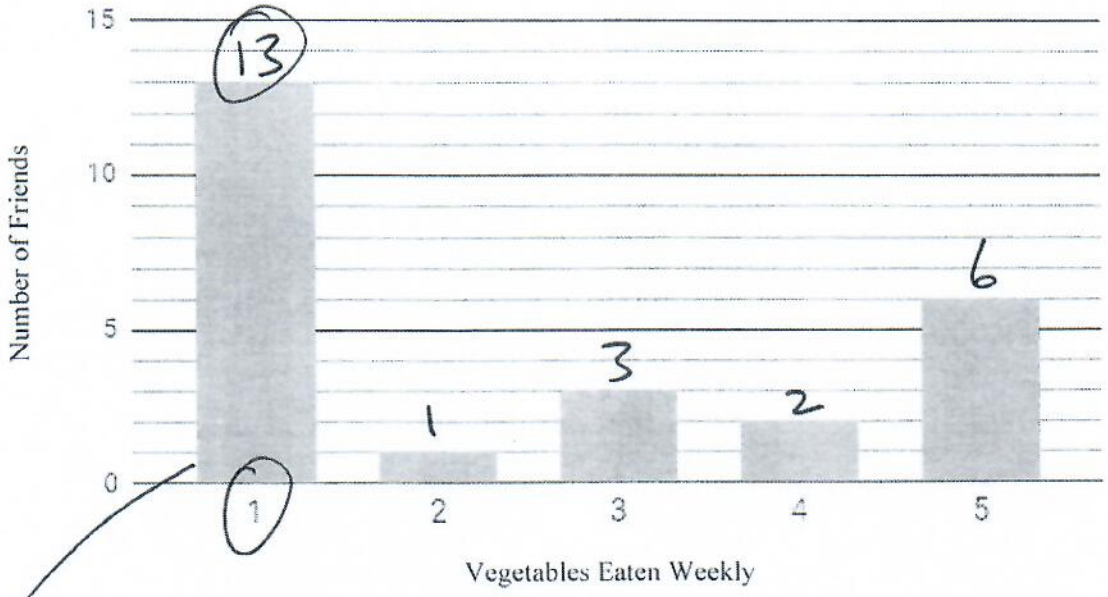
40 hours

b) Look again at the bar chart above. On **one** of the days, over the above seven day period, she studied $\frac{1}{10}$ **of her revision hours**. Which **day** was it? Write your answer in the space below.

$\times 1$ / $\div 10$ of 40 = 4

Tuesday

A child asks their friends **how many days a week** they eat vegetables. The bar chart below shows the results.



a) **How many** friends did the child ask? Write your answer in the space below.

13 + 1 + 3 + 2 + 6 = 25

25 friends

b) What **percentage** of the child's friends eat vegetables **once** a week? Write your answer in space below.

out of 100

$\frac{13}{25} \times 4 = \frac{52}{100} \times 4$

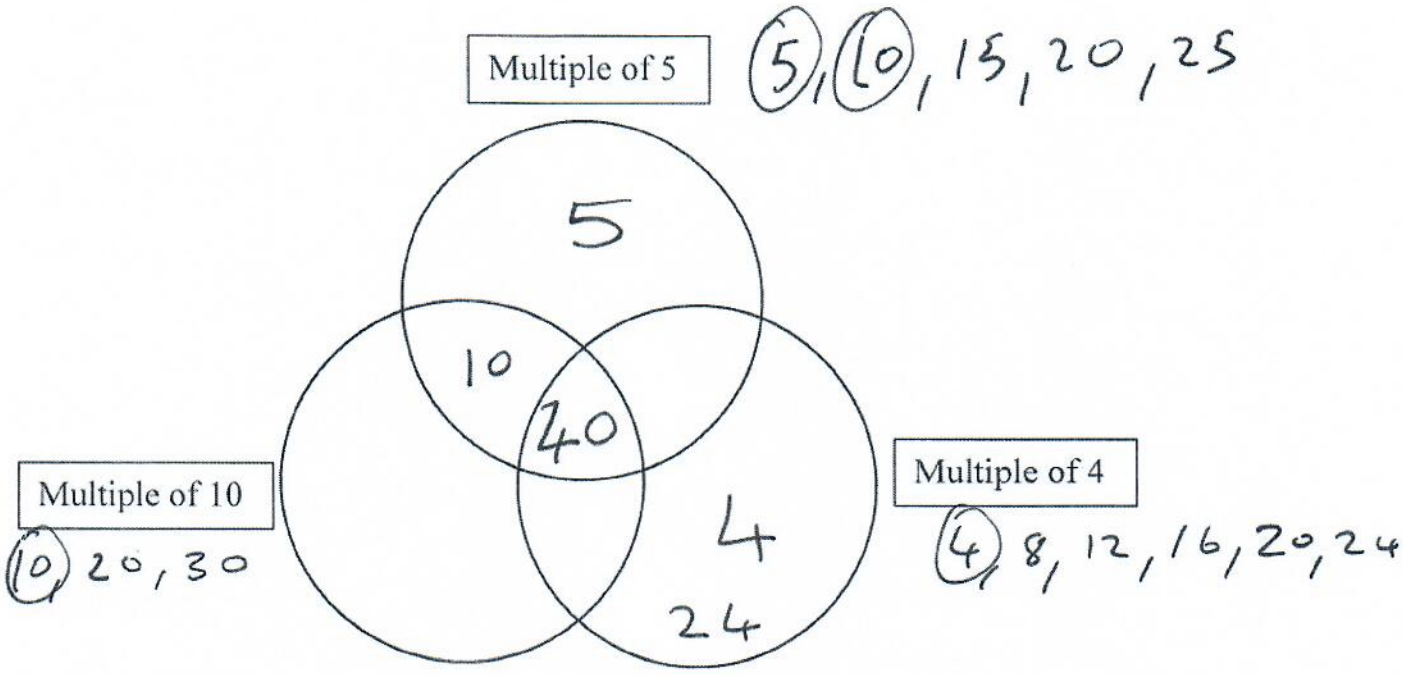
52 %

$13 \times 4 = 52$

Look at the numbers below.

a) Put them in the correct areas of the Venn diagram.

4 **5** **10** **24**

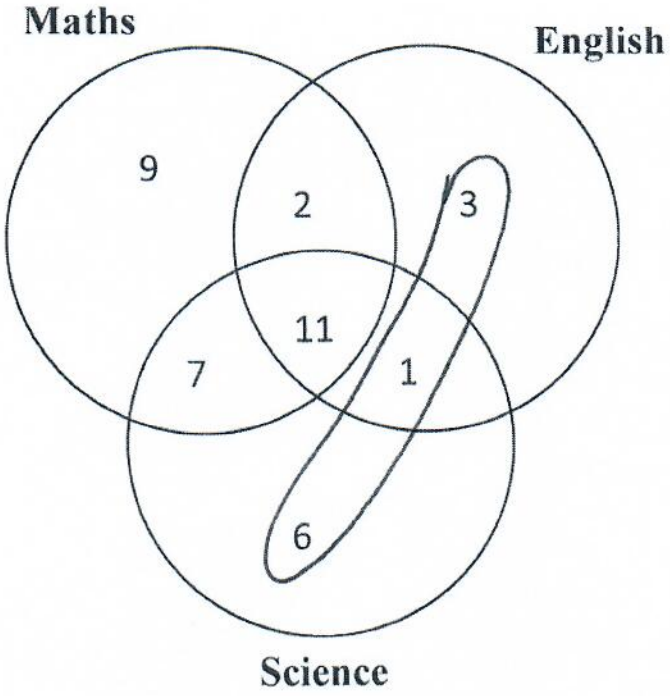


b) Look again at the Venn diagram above. Can you think of a number **between 30 and 60** that would go in the **middle section** of the Venn diagram? Write your answer in the space below.

~~10~~, ~~20~~, ~~30~~, 40, ~~50~~, ~~60~~

40

Clare investigated her classes favourite subjects. Clare asks the pupils in her class and draws the Venn Diagram below.



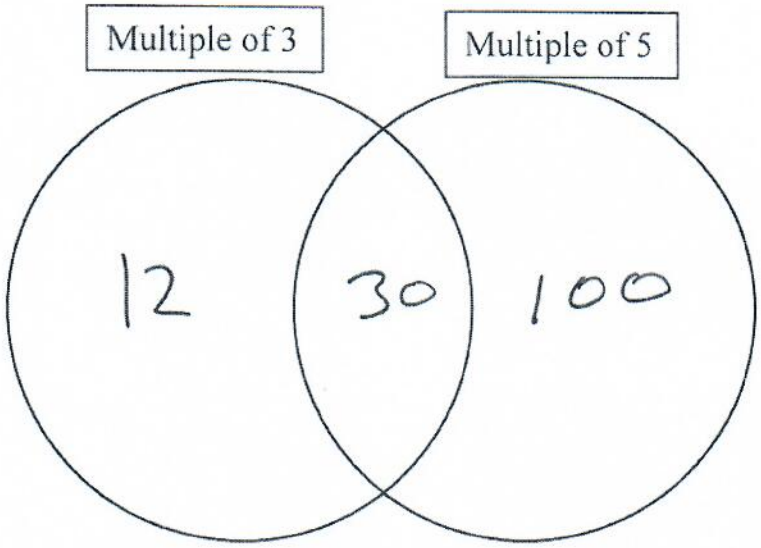
How many pupils like Science **and** English, **but not** Maths? Write your answer in the space below.

10 pupils $6 + 3 + 1 = 10$

Look at the Venn Diagram below.

a) Write the numbers in the correct place in the Venn diagram.

12 30 100



b) Look again at the Venn diagram above. Can you think of **another number** that would go in the **middle section** of the Venn diagram? Write your answer in the space below.

15 or any x15

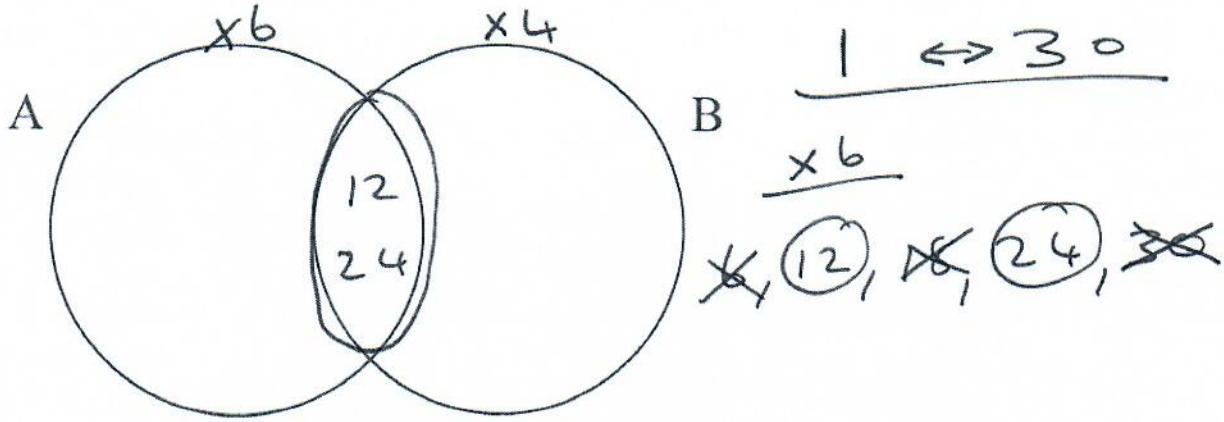
x3 x5 = x15

15, ~~30~~, 45, 60, 75, 90....

Look at the Venn diagram below.

A is the set of **whole numbers between 1 and 30** which is a **multiple of 6**.

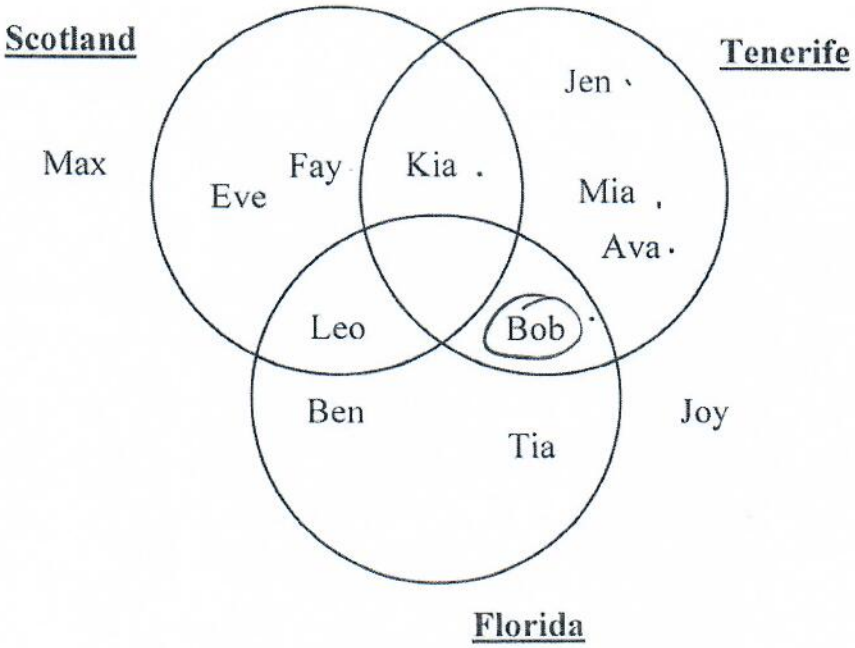
B is the set of **whole numbers between 1 and 30** which is a **multiple of 4**.



The middle section overlapping between A and B on the Venn diagram contains **two numbers**. Write your answer in the spaces below.

The two numbers in the middle region are 12 and 24.

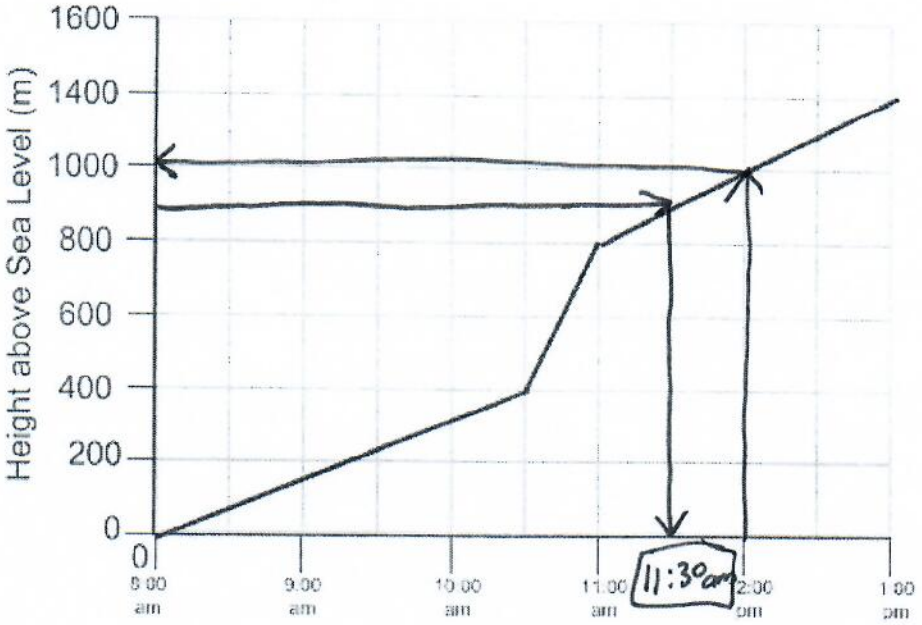
A survey was carried out to find the **holiday destinations 12 different people enjoy.** The **Venn diagram** below shows the results of the survey. Look at the **4 statements** below. Using the Venn diagram, tick **True** or **False** for each statement.



- **Five people enjoy Tenerife**
- **Bob enjoys Tenerife and Florida.**
- **8 people do not enjoy Tenerife**
- **Max enjoys Scotland**

	True	False
Five people enjoy Tenerife	✓	
Bob enjoys Tenerife and Florida.	✓	
8 people do not enjoy Tenerife		✓
Max enjoys Scotland		✓

An explorer climbs up to the top of a mountain. The graph below shows the explorer's height above sea level at certain times of the day.



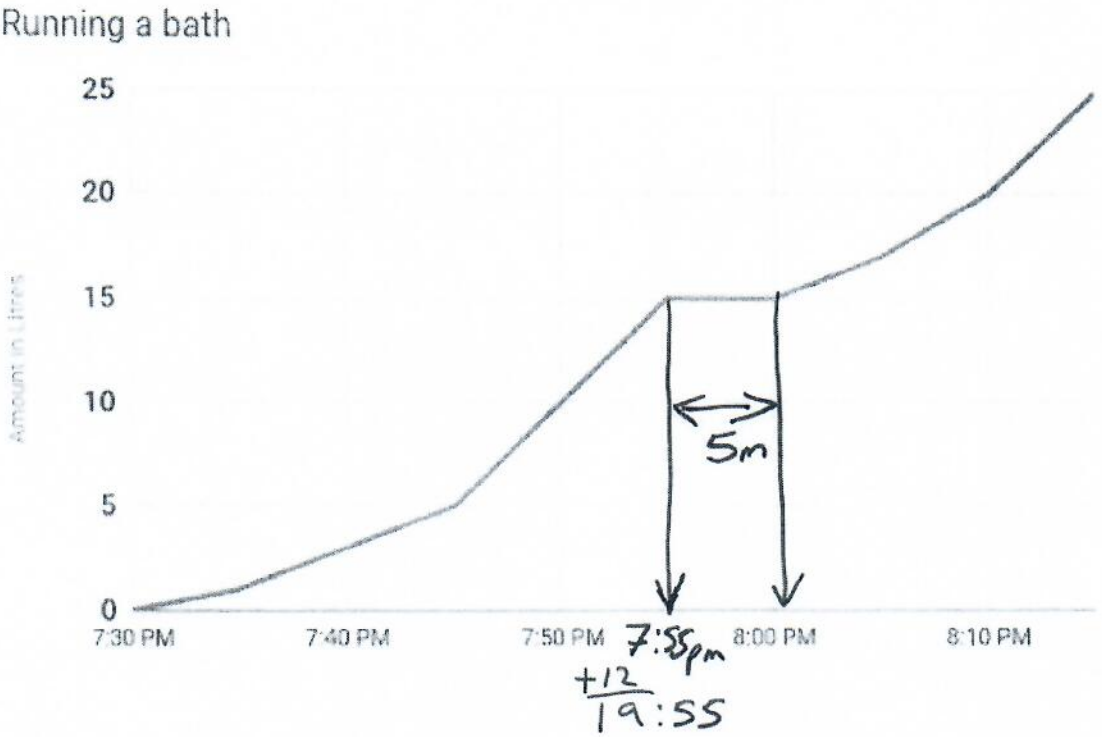
a) How **high** has the explorer climbed at **12:00**? Write your answer in the space below.

1000 m

b) Look again at the line graph. What time did the explorer reach **900** meters above sea level? Write your answer in the space below in **24-hour clock**.

11:30

Jen is running a bath after a long day at work to relax. The line graph below outlines the amount of water in litres that was put in the bath from 7:30pm to 8:15pm.



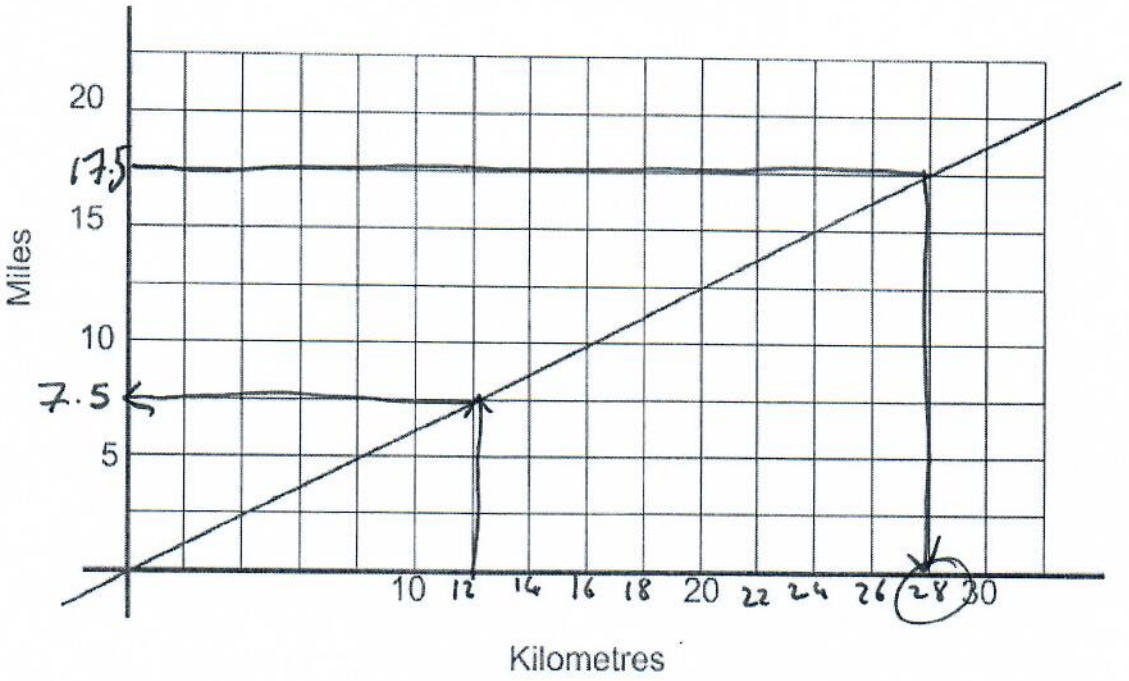
a) Jen went to make a cup of tea during the time of running the bath and turned the tap off and then back on when she returned. **What time did she turn the tap off?** Write your answer in the space below in **24-hour clock**.

19:55

b) How long was she away making a cup of tea? Write your answer in the space below.

5 mins

Grace's graph can be used to **convert between miles and kilometres**.



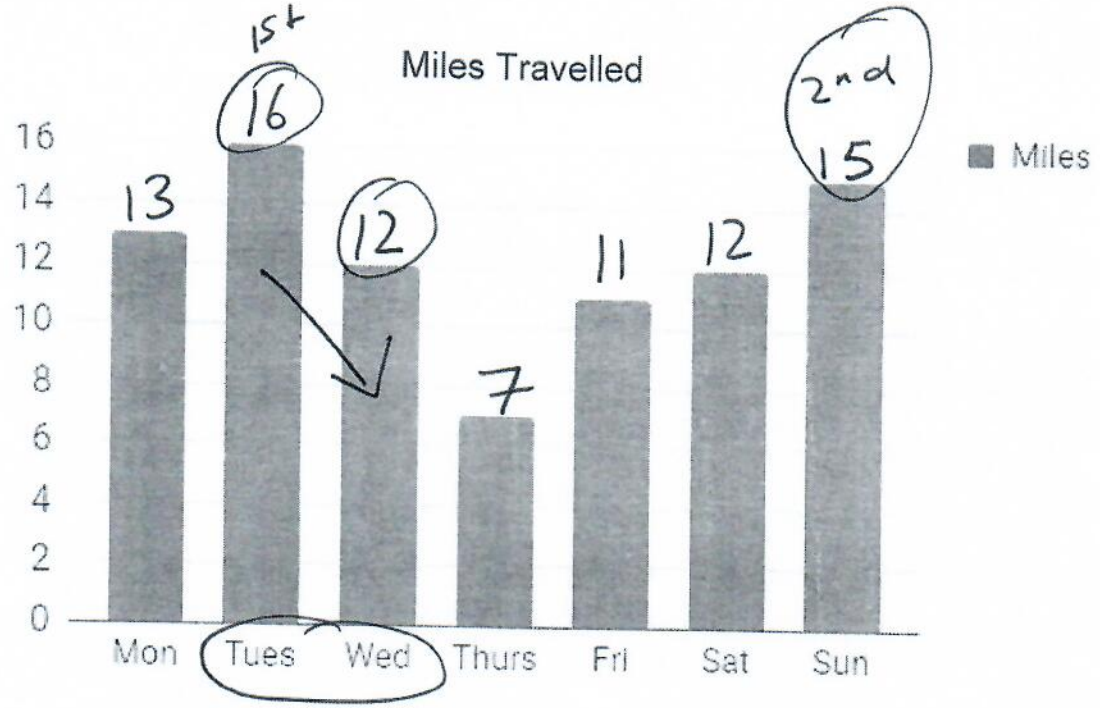
a) Use her graph to **convert 12 kilometres** to **miles**. Write your answer in the space below.

7.5 miles

b) Use her graph to **convert 17.5 miles** to **kilometres**. Write your answer in the space below.

28 kilometres

Derek records the **number of miles** he **travels each day** for a week. He draws the graph below.



a) On which **day** did he travel the **2nd most number of miles**? Write your answer in the space below.

Sunday

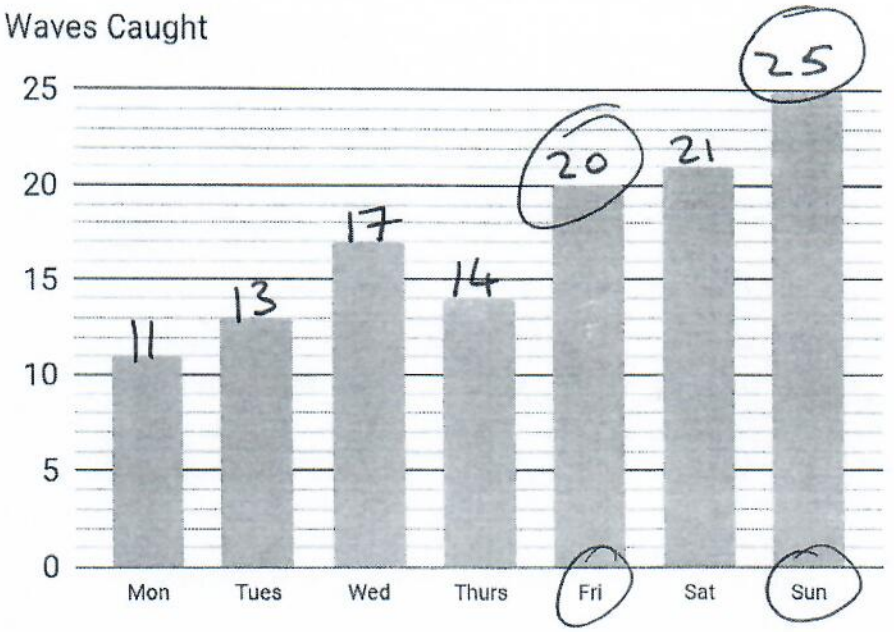
b) Look again at the bar chart above. Over **two consecutive days** there is a **25% decrease** in his miles travelled. Write the names of the two days below.

$\frac{1}{4}$ ↓

$\frac{1}{4}$ of 16 = 4 → 16 − 4 = 12

Tuesday and Wednesday

Ruth is learning to surf, and she goes on an intensive weeks tuition. Every day she is out surfing over a period of a week and she records the number of waves she catches each day to see if she is improving. She creates a bar chart to show the number of waves she caught each day. Use the bar chart to answer the questions below.



11 + 13 = 24
17 + 14 = 31
20 + 21 = 41
+ 25
121

a) How many waves did she catch in total over the week? Write your answer in the space below.

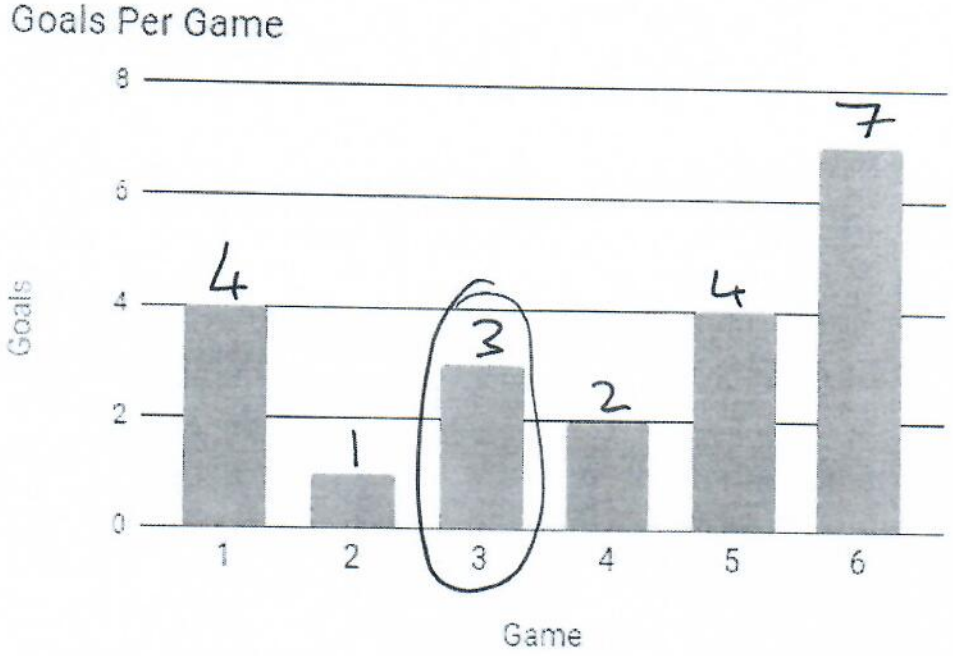
121 waves

b) On one of the days Ruth caught ⅘ of the number of waves than that of another day. Write your answer in the spaces below to make the sentence correct.

The number of waves caught on Friday was ⅘ of the amount of waves caught on Sunday.

×4 ÷5 of 25 = 20

Jordan is playing in a football tournament. He records the number of goals he scores each game. Below is the bar chart which shows his results.



7+3 = 10
4+4+2 = 10
+ 1
21

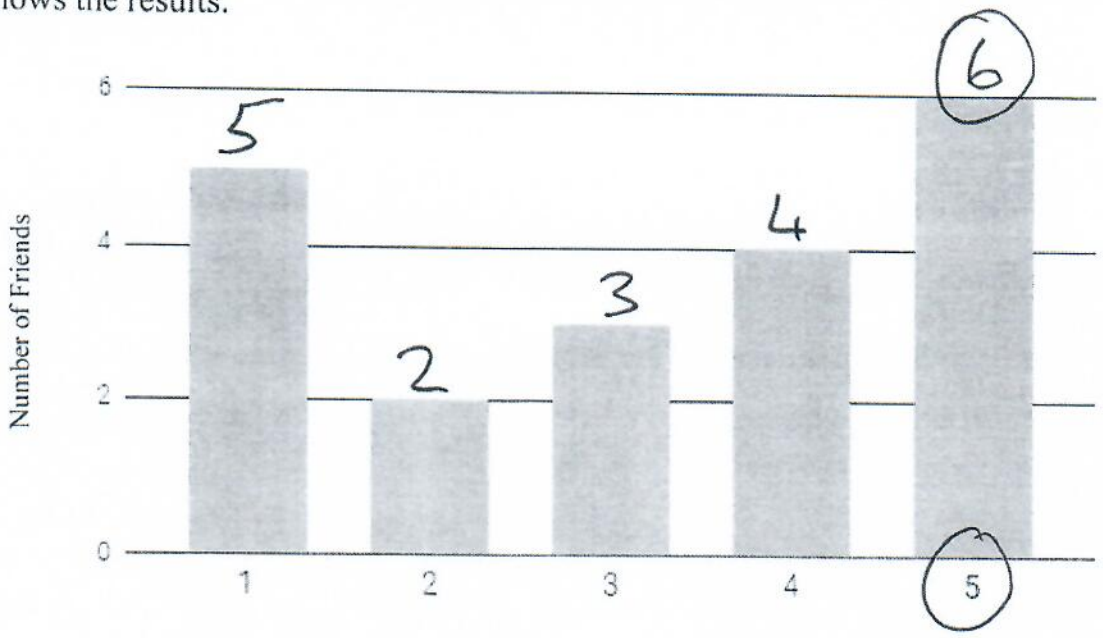
a) How may goals did Jordan score **in total over the 6 games**? Write your answer in the space below.

21 goals

b) Look again at the bar chart above. In **one** of the games, over the above six games, he scored $\frac{1}{7}$ **of his goals**. Which **game** was it? Write your answer in the space below.

3 ×1/÷7 of 21 = 3

A child asks their friends **how many days a week** they eat vegetables. The bar chart below shows the results.



Vegetables Eaten Weekly

a) **How many** friends did the child ask? Write your answer in the space below.

$6 + 4 = 10$

$5 + 2 + 3 = +10$

20

20 _____ friends

out of 100

b) What **percentage** of the child's friends eat vegetables **five** times a week? Write your answer in space below.

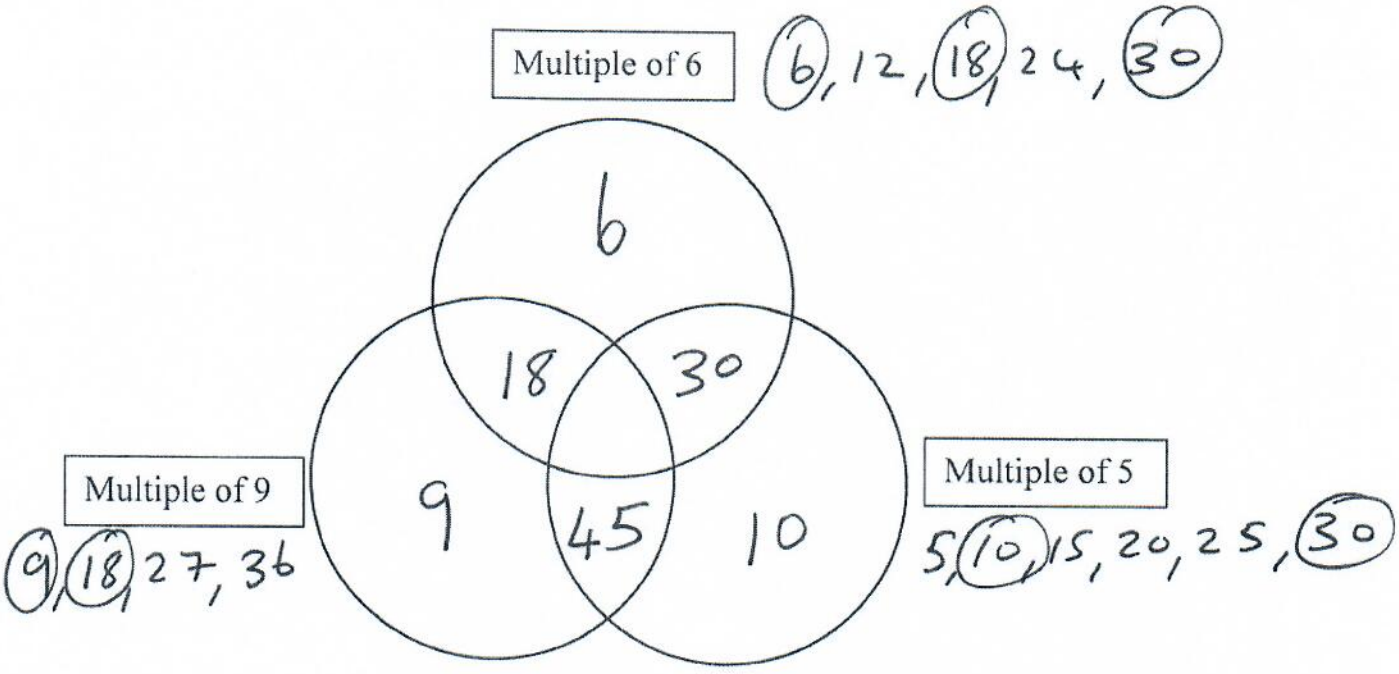
$\frac{6}{20} \xrightarrow{\times 5} \frac{30}{100}$

30 _____ %

Look at the numbers below.

a) Put them in the correct areas of the Venn diagram.

6 9 10 18 30

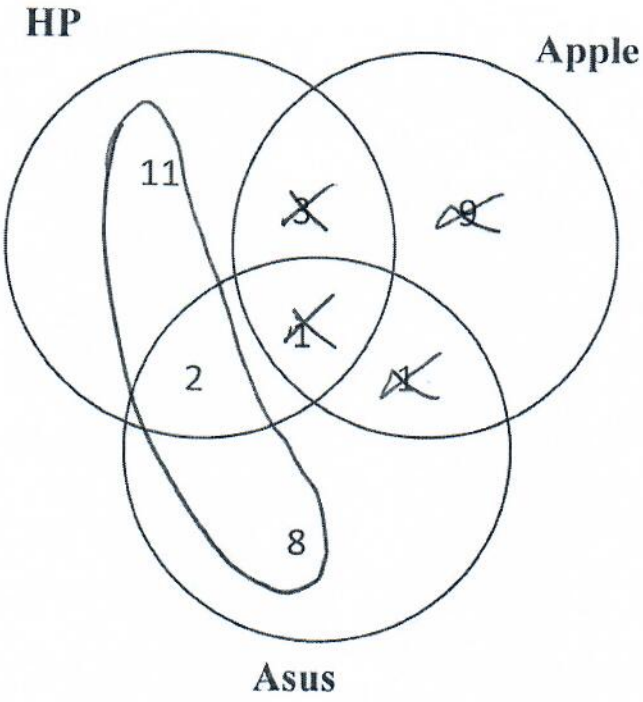


b) Look again at the Venn diagram in above. Can you think of a number **between 1 and 50** that would go in the **section between the Multiple of 9 and the Multiple of 5** of the Venn diagram? Write your answer in the space below.

$\times 9 \quad \times 5 = \times 45$

45

Derek investigated the types of computers people used in his workplace. Derek asks the people in his workplace and draws the Venn Diagram below.



How many people use HP **and** Asus, **but not** Apple? Write your answer in the space below.

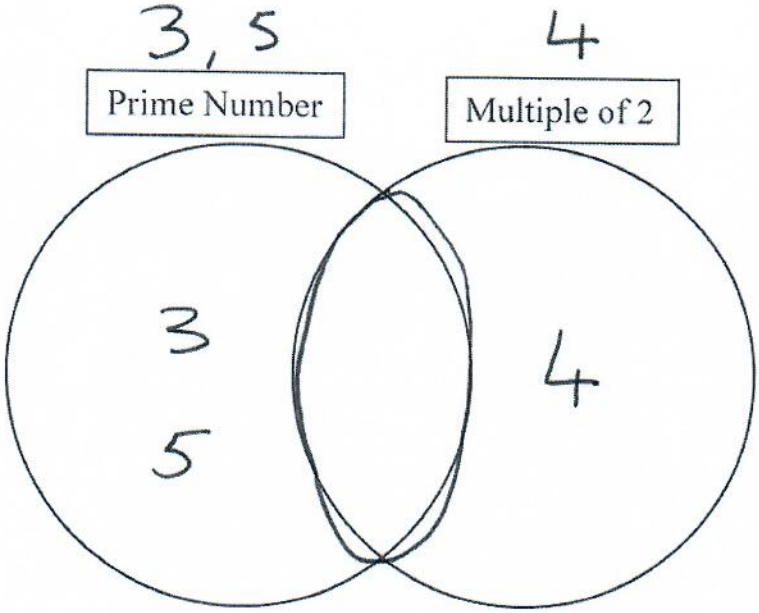
$8 + 2 + 11 = 21$

21 people

Look at the Venn Diagram below.

a) Write the numbers in the correct place in the Venn diagram.

3 **4** **5**



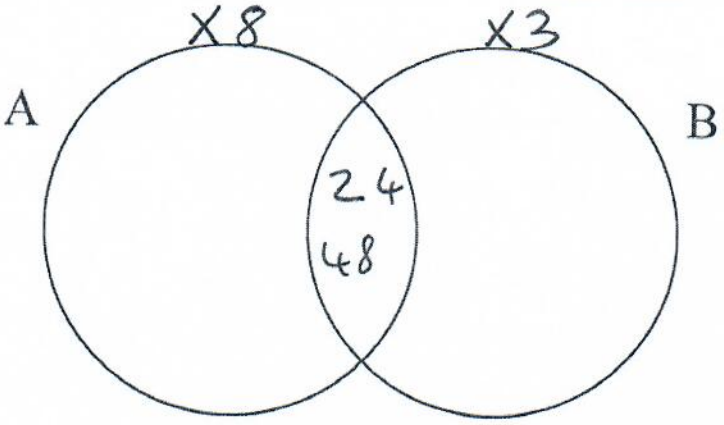
b) Look again at the Venn diagram above. Can you think of **a number** that would go in the **middle section** of the Venn diagram? Write your answer in the space below.

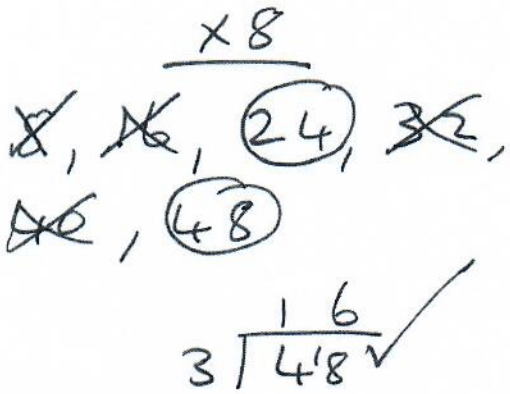
2 (The only even prime number)

Look at the Venn diagram below.

A is the set of **whole numbers between 1 and 50** which is a **multiple of 8**.

B is the set of **whole numbers between 1 and 50** which is a **multiple of 3**.





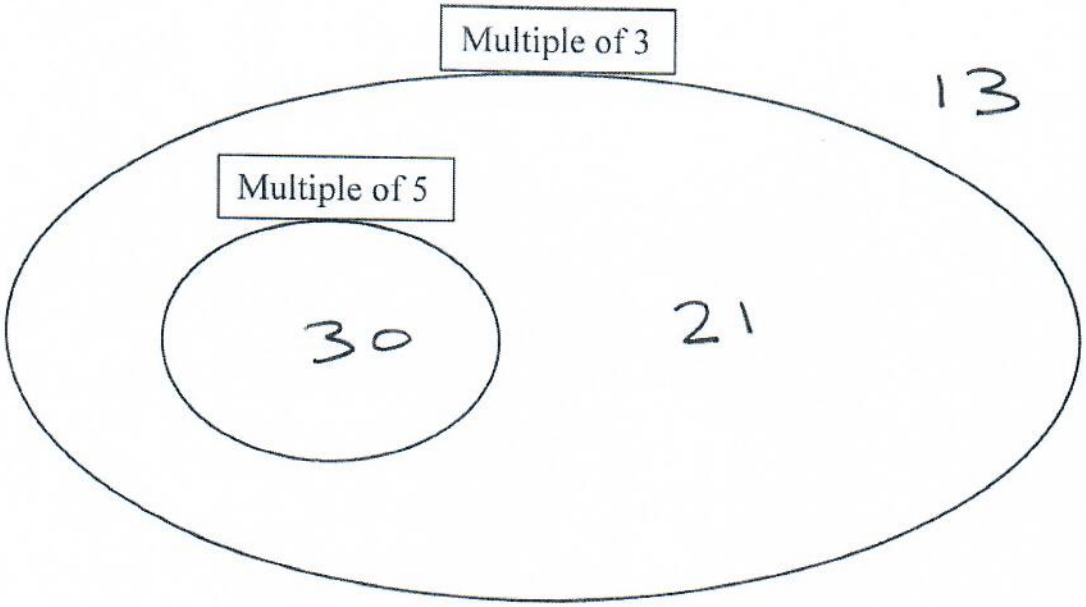
The middle section overlapping between A and B on the Venn diagram contains **two numbers**. Write your answer in the spaces below.

The two numbers in the middle region are 24 and 48.

Look at the Venn Diagram below.

a) Write the numbers in the correct place in the Venn diagram.

30 **21** **13**



b) Look again at the Venn diagram above. Can you think of **another number** that would go in the **multiple of 5 section** of the Venn diagram? Write your answer in the space below.

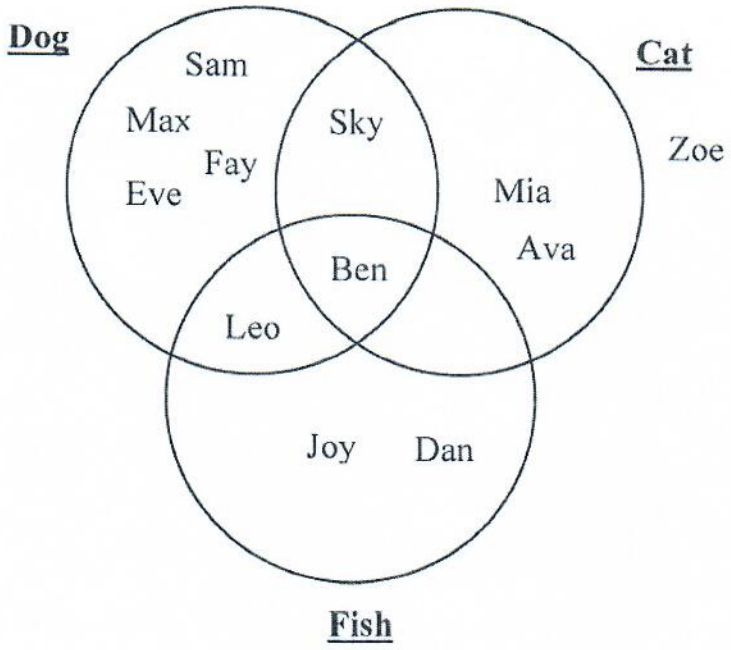
$\times 3 \quad \times 5 = \times 15$

15

or any $\times 15$

15, 30, 45, 60, 75, 90 . . . .

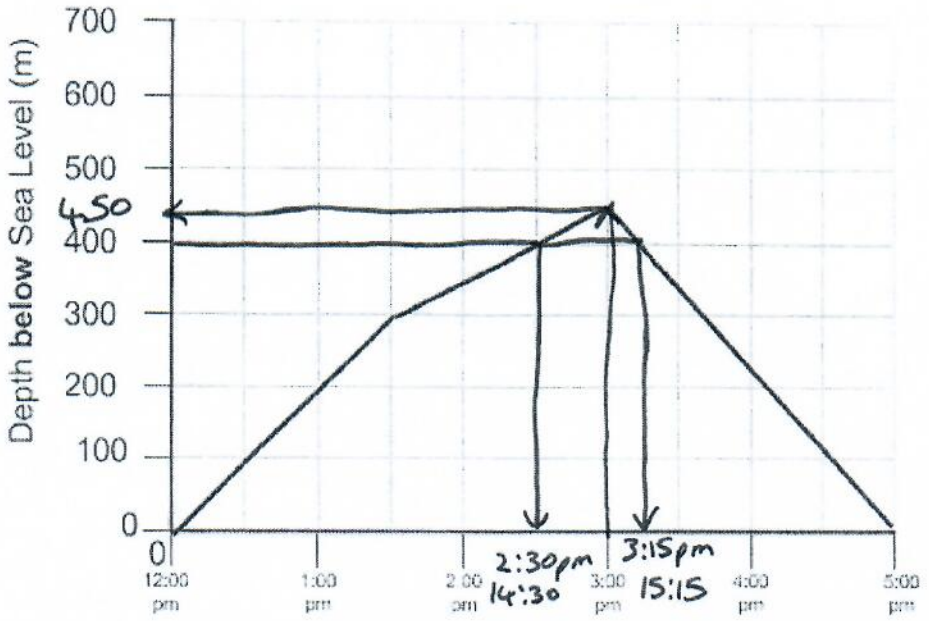
A survey was carried out to find the **pets that 12 different people own.** The **Venn diagram** below shows the results of the survey. Look at the **4 statements** below. Using the Venn diagram, tick **True** or **False** for each statement.



- **7 People own a dog**
- **7 people do not own a cat**
- **Leo does not have a fish**
- **Ben owns a dog, cat and a fish**

	True	False
7 People own a dog	✓	
7 people do not own a cat		✓
Leo does not have a fish		✓
Ben owns a dog, cat and a fish	✓	

A submarine is diving in the sea. The graph below shows the submarines height below sea level at certain times of the day.



a) How **deep** has the submarine submerged at **15:00**? Write your answer in the space below.

3:00pm

450 m

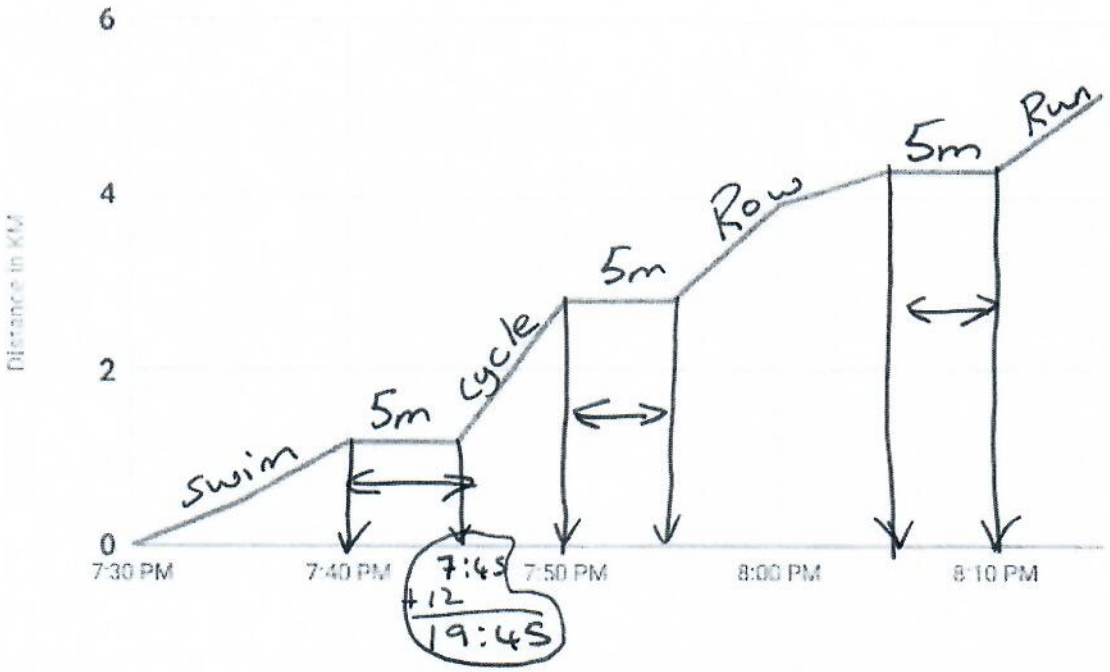
b) Look again at the line graph. What **two** times did the submarine reach **400** meters below sea level? Write your answers in the space below in **24-hour clock**.

14:30 and 15:15

Ruth is running a race for charity; it involves 4 different stages:

1) Swim 2) Cycle 3) Row 4) Run

Running a Race



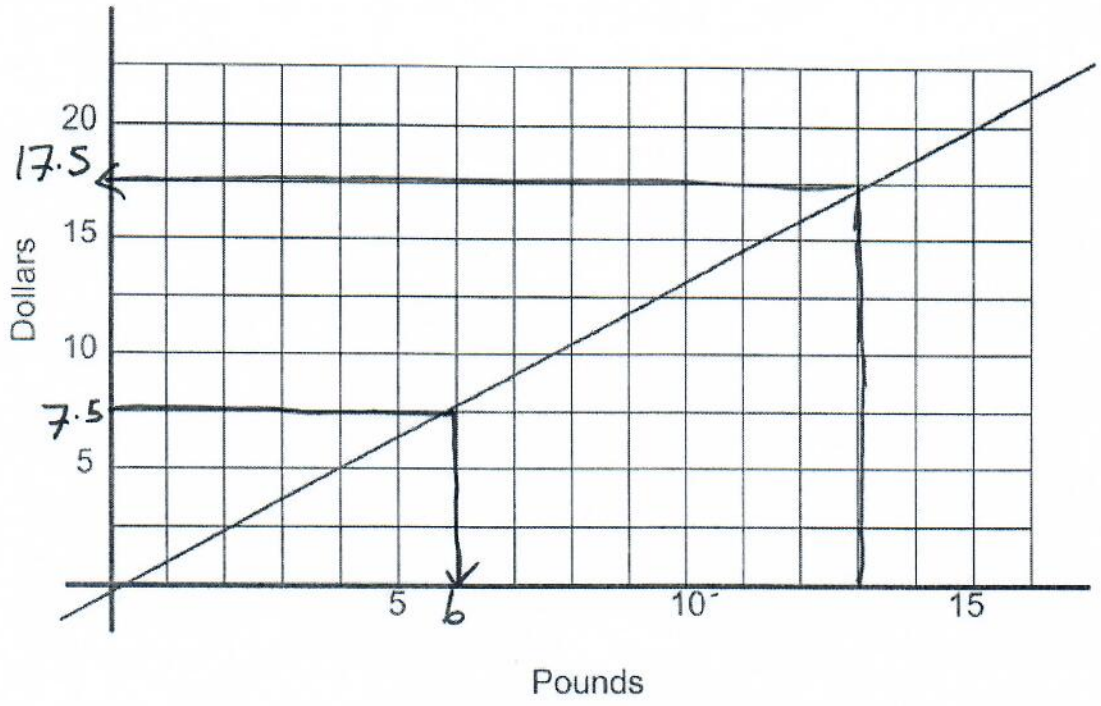
a) How long in **minutes** did she have to stop for between each part of the race **in total**? Write your answer in the space below.

15 mins $5+5+5=15$

b) At what time did Ruth **start the cycling phase** of the race? Write your answer in the space below in **24-hour clock.**

19:45

Derek's graph can be used to **convert between Dollars and Pounds.**



a) Use his graph to **convert 7.5 Dollars** to **Pounds**. Write your answer in the space below.

6 Pounds

b) Use his graph to **convert 13 Pounds** to **Dollars**. Write your answer in the space below.

17.5 Dollars

Simile and Metaphor

Simile: Comparison of two different things using the words, "like" or "as".

Metaphor: Comparison of two different things that does not use the words, "like" or "as".

His eyes shone like diamonds. **(Simile / Metaphor)**

The sea is a mirror to the clouds. **(Simile / Metaphor)**

Darkness is a swallowed night. **(Simile / Metaphor)**

Darkness is like a painted day. **(Simile / Metaphor)**

The wind was a whip. **(Simile / Metaphor)**

His ears pop like champagne corks. **(Simile / Metaphor)**

The kitchen is the heart of my mother's house. **(Simile / Metaphor)**

The idea was a fire in my head. **(Simile / Metaphor)**

The waxed floor was as slippery as an ice rink. **(Simile / Metaphor)**

The rain was a curtain of water on the window. **(Simile / Metaphor)**

All the world's a stage. **(Simile / Metaphor)**