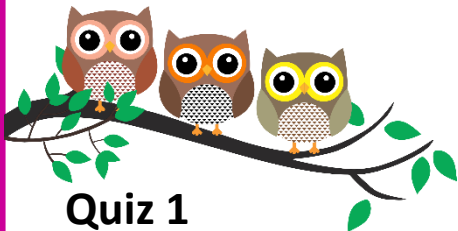


Higher Interleaving Quiz

Branch 9

Quizzes 1 to 3



Quiz 1

Q	Topic	Σ	R	A	G
1	Ratio Problem				
2	Inequalities				
3	Similar Shapes				
4	Probability Tree				

Home Study Focus

Home Study
Completed

Quiz 2

Q	Topic	Σ	R	A	G
1	Compound Interest				
2	Simultaneous Equations				
3	Area Problem				
4	Averages from a Table				

Home Study Focus

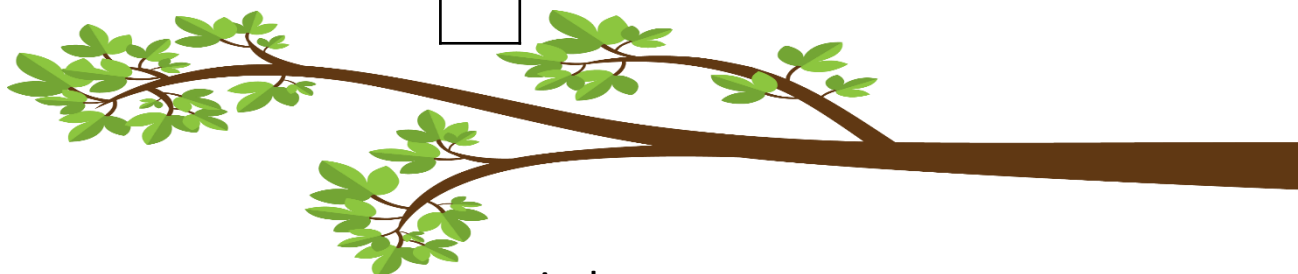
Home Study
Completed

Quiz 3

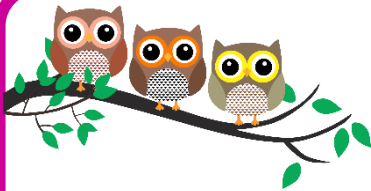
Q	Topic	Σ	R	A	G
1	Calculators Skills				
2	Algebraic Fractions				
3	Sectors				
4	Frequency Tree				

Home Study Focus

Home Study
Completed

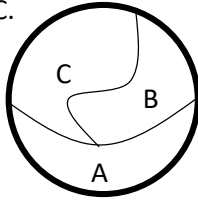


Higher Interleaving Quiz



Branch 9 Quiz 1

- 1) The diagram shows a circle split into three regions: A, B and C.



The ratio of the areas of the regions is 2: 3: 5.
The radius of the circle is 10cm.
Calculate the area of region A. **(4 marks)**

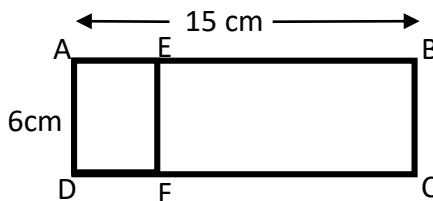
Answer: _____

- 2) Solve $8 - \frac{1}{2}x \geq 5$ **(2 marks)**

Answer: _____

- 3) Rectangles ABCD is mathematically similar to rectangle DAEF.

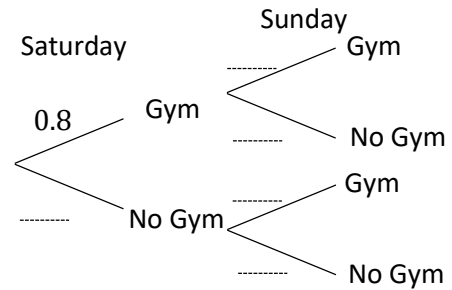
$AB = 15\text{ cm}$ and $AD = 6\text{ cm}$



Work out the area of rectangle DAEF. **(3 marks)**

Answer: _____

- 4) The probability that Ollie goes to the gym on a Saturday is 0.8
The probability that Ollie goes to the gym on a Sunday is 0.4



- a) Complete the probability Tree **(2 marks)**

- b) Calculate the probability Ollie goes to the gym on a Saturday and a Sunday. **(1 mark)**

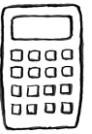
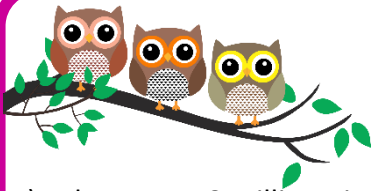
Answer: _____

- c) Calculate the probability Ollie goes to the gym on exactly one of these days. **(3 marks)**

Answer: _____

Q	Topic	Σ	R	A	G
1	Ratio Problem				
2	Inequalities				
3	Similar Shapes				
4	Probability Tree				

Higher Interleaving Quiz

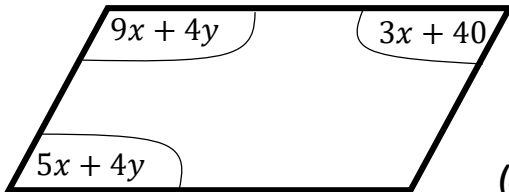


Branch 9 Quiz 2

- 1) There are 18 million pigeons in the UK when a histoplasmosis outbreak began. The population of pigeons decreases by 0.8% monthly during the outbreak for 5 months. How many pigeons are there now. **(2 marks)**

Answer: _____

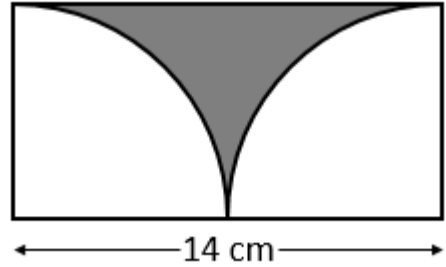
- 2) Below is a parallelogram. Find the values for x and y using an algebraic method.



(5 marks)

$x =$ _____ $y =$ _____

- 3) Two identical quarter circles are cut from a rectangle as shown.



Work out the shaded area. **(5 marks)**

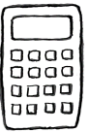
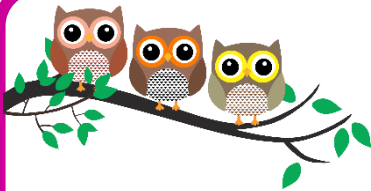
Answer: _____

- 4) There are 300 pigeons in a race. Estimate the mean **(3 marks)**

Time (t) in mins	Frequency
$60 < t \leq 120$	80
$120 < t \leq 180$	120
$180 < t \leq 540$	100
$t > 540$	0

Q	Topic	Σ	R	A	G
1	Compound Interest				
2	Simultaneous Equations				
3	Area Problem				
4	Averages from a Table				

Higher Interleaving Quiz



Branch 9 Quiz 3

- 1) Millie says an approximate solution or the following calculation is 4.3. Use your calculator to show that this approximation is within 0.1.

$$1 + \left(\frac{2}{3} + \frac{5}{6} + \frac{8}{9} + \frac{11}{12}\right) \quad (2 \text{ marks})$$

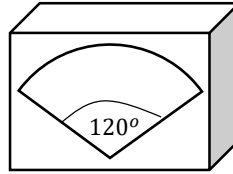
Answer: _____

- 2) Simplify

$$\frac{x-3}{2x} \div \frac{3x-9}{4x^2} \quad (4 \text{ marks})$$

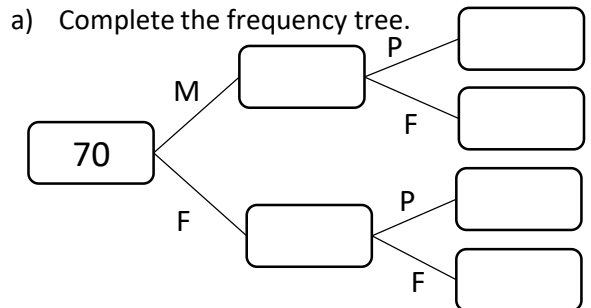
Answer: _____

- 3) A Charlie the carpenter cuts a hole out of a box to enable his racing pigeons to get inside. What is the radius of the sides of the hole, if he needs the arc length to be 18.5cm. **(4 marks)**



Answer: _____

- 4) A time trial for pigeons taking place. 70 pigeons were in the race. 32 pigeons were female. Females passed and failed in the ratio of 5:3. 34 pigeons passed in total. **(3 marks)**



- b) Holly states that a higher proportion of males passed the test to females. Is she correct? **(2 marks)**
Give reason for your answer.

Q	Topic	Σ	R	A	G
1	Calculator Skills				
2	Algebraic Fractions				
3	Sectors				
4	Frequency Tree				