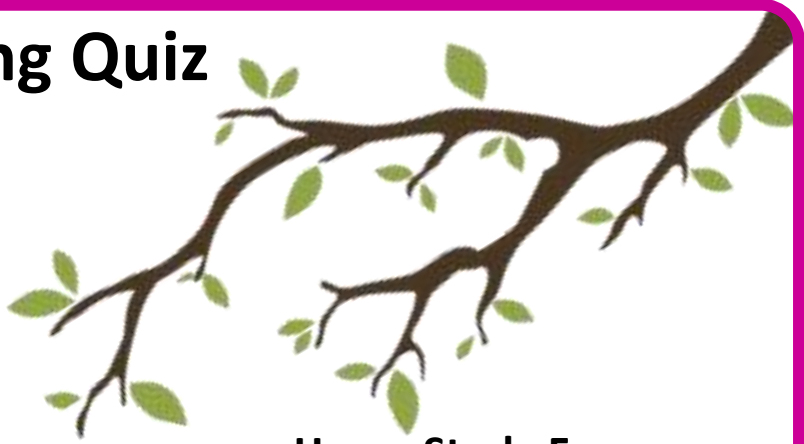
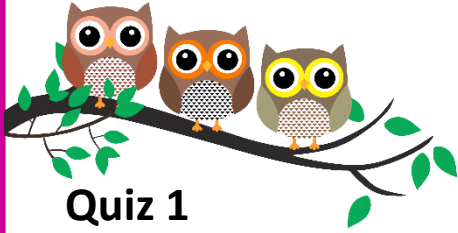


Higher Interleaving Quiz

Branch 1

Quizzes 1 to 3



Quiz 1

Q	Topic	Σ	R	A	G
1	Product of Prime Factors				
2	Difference of Two Squares				
3	Area Problem				
4	Cumulative Frequency				

Home Study Focus

Home Study Completed

Quiz 2

Q	Topic	Σ	R	A	G
1	Ratio Problem				
2	Expand and simplify				
3	Right Angled Trigonometry				
4	Cumulative Frequency				

Home Study Focus

Home Study Completed

Quiz 3

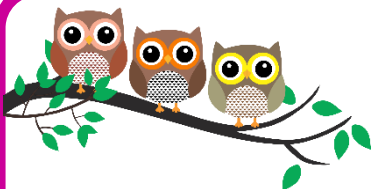
Q	Topic	Σ	R	A	G
1	Ratio Problem				
2	Functions				
3	Volume and Mass				
4	Mean from a Table				

Home Study Focus

Home Study Completed



Higher Interleaving Quiz



Branch 1 Quiz 1

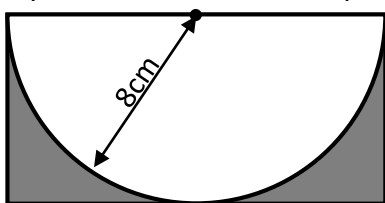
1) Express 126 as a product of its prime factors in index form. **(3 marks)**

Answer: _____

2) Factorise and solve $9x^2 - 25 = 0$ **(3 marks)**

Answer: _____

3) The radius of the semi circle is 8cm. Calculate the area of the shaded section. Leave your answer in terms of pi. **(4 marks)**

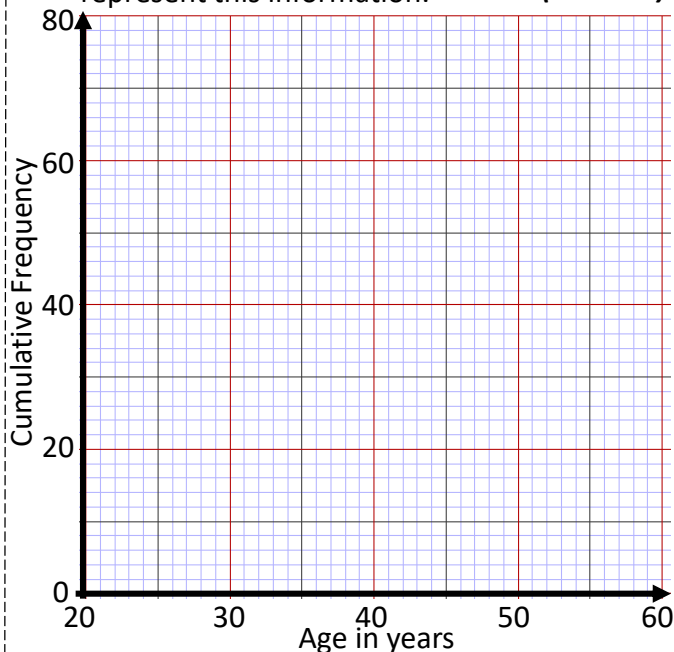


Answer: _____

4) This frequency table gives information about the ages of 60 fire fighters.

Age (A) in years	Frequency		
$25 < A \leq 30$	15		
$30 < A \leq 40$	19		
$40 < A \leq 50$	14		
$50 < A \leq 55$	9		
$55 < A \leq 60$	3		

a) Draw a cumulative frequency graph to represent this information. **(3 marks)**

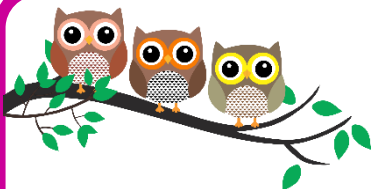


b) Use your cumulative frequency graph to find an estimate for the median age. **(2 marks)**

Answer: _____

Q	Topic	Σ	R	A	G
1	Product of Prime Factors				
2	Difference of Two Squares				
3	Area Problem				
4	Cumulative Frequency				

Higher Interleaving Quiz



Branch 1 Quiz 2

1) The ratio of x : y is 3: 4

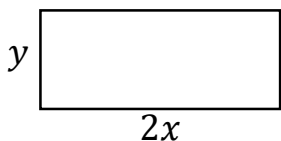
a) Circle the correct statement

(1 marks)

x is $\frac{3}{4}$ of y y is $\frac{3}{4}$ of x x is $\frac{3}{7}$ of y y is $\frac{4}{7}$ of x

b) Write an expression for the perimeter of the rectangle in terms of y .

(3 marks)



Answer: _____

2) Expand and simplify

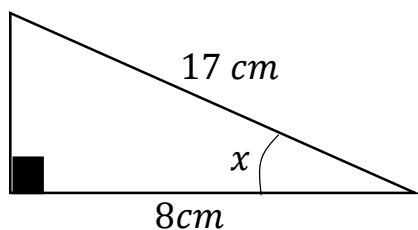
(3 marks)

$$(3x + 4)(x - 1) - 2x(x + 5)$$

Answer: _____

3) Work out the size of angle x

(2 marks)



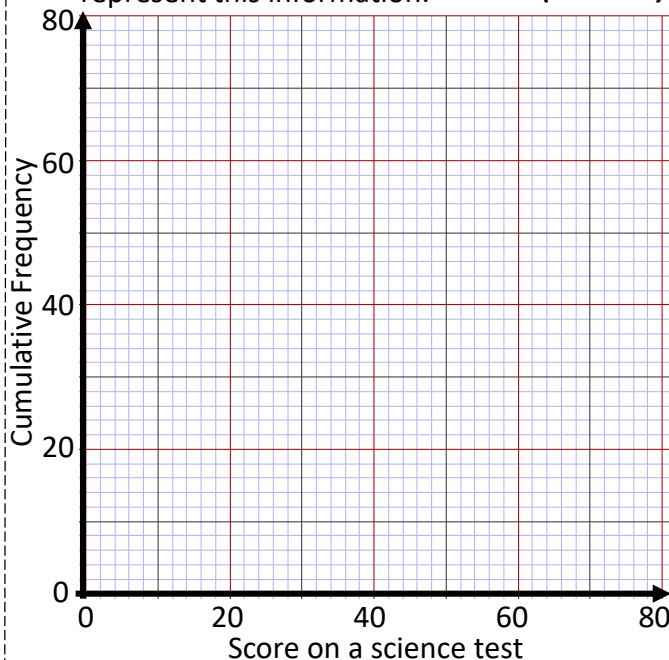
Answer: _____

4) This frequency table gives information about the scores of 70 students on a science test.

Score (S)	Frequency		
$0 < S \leq 30$	8		
$30 < S \leq 40$	15		
$40 < S \leq 60$	27		
$60 < S \leq 70$	16		
$70 < S \leq 80$	4		

a) Draw a cumulative frequency graph to represent this information.

(3 marks)



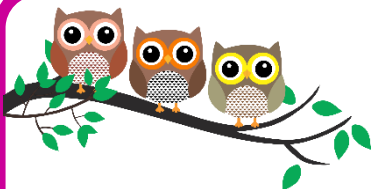
b) Use your graph to find an estimate for the interquartile range.

(3 marks)

Answer: _____

Q	Topic	Σ	R	A	G
1	Ratio Problem				
2	Expand and simplify				
3	Right Angled Trigonometry				
4	Cumulative Frequency				

Higher Interleaving Quiz



Branch 1 Quiz 3

1) The ratio of x : y is 3:2

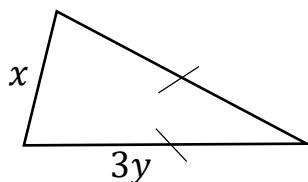
a) Circle the correct statement

(1 marks)

x is $\frac{2}{3}$ of y y is $\frac{2}{3}$ of x x is $\frac{3}{5}$ of y y is $\frac{2}{5}$ of x

b) Write an expression for the perimeter of the triangle in terms of x .

(3 marks)



Answer: _____

2) $f(x) = x^2 - 2$

a) Circle the value for $f(-3)$

(1 marks)

-7 11 -11 7

b) Circle the expression for $f^{-1}(x)$

(1 marks)

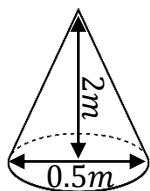
$-(x^2 + 2)$ $\frac{2}{x^2}$ $\sqrt{x + 2}$ $\frac{(x + 2)}{2}$

3)

a) Calculate the volume of the cone. Give your answer in centimetres.

(3 marks)

$$\text{Volume of cone} = \frac{1}{3}\pi r^2 h$$



Answer: _____

b) The cone has density of 0.2g/cm^3 . Calculate the mass of the object.

(2 marks)

Answer: _____

4) This frequency table gives information about the scores of 70 students on a science test.

Score (S)	Frequency		
$0 < S \leq 30$	8		
$30 < S \leq 40$	15		
$40 < S \leq 60$	27		
$60 < S \leq 70$	16		
$70 < S \leq 80$	4		

a) Calculate an estimate for the mean score.

(3 marks)

Answer: _____

b) Calculate the proportion of the class which scores more than 50% on the test.

(1 marks)

Answer: _____

Q	Topic	Σ	R	A	G
1	Ratio Problem				
2	Functions				
3	Volume and Mass				
4	Mean from a Table				