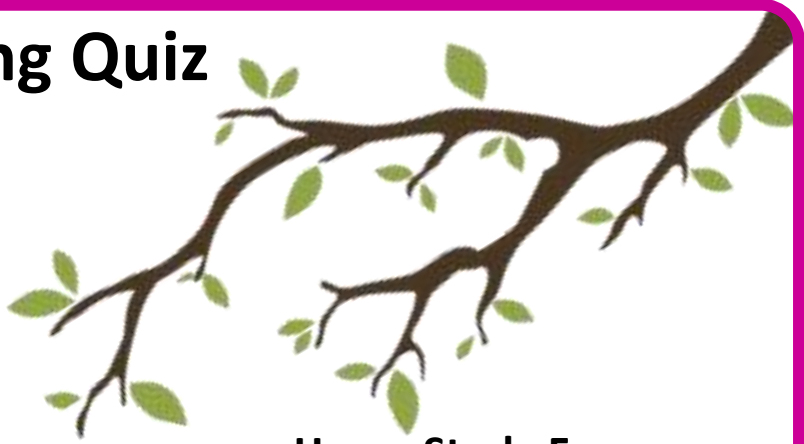
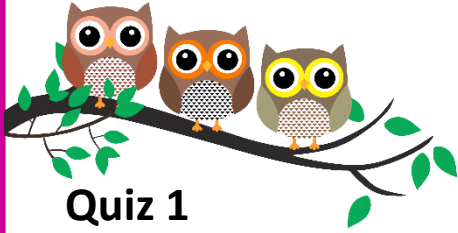


Higher Interleaving Quiz

Branch 8

Quizzes 1 to 3



Home Study Focus

Quiz 1

Q	Topic	Σ	R	A	G
1	Proportion Problem				
2	Difference of two squares				
3	Transformation Graph				
4	Cumulative Frequency				

Home Study
Completed

Quiz 2

Q	Topic	Σ	R	A	G
1	Reverse Percentage				
2	Iteration				
3	Trigonometry				
4	Averages from a Table				

Home Study
Completed

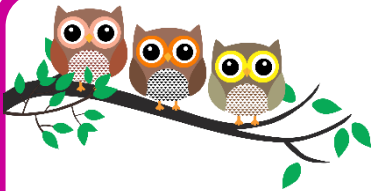
Quiz 3

Q	Topic	Σ	R	A	G
1	Recurring Decimals				
2	Inequalities				
3	Similar Shapes				
4	Venn Diagrams				

Home Study
Completed



Higher Interleaving Quiz



Branch 8 Quiz 1

1) A farm used 48 workers to plant carrots in a field. The field measured 60 acres and the work was completed in 20 days. The farm is asked to prepare another field measuring 90 acres. This work has to be completed in 30 days. Calculate the least number of workers the farm should employ for this work. **(3 marks)**

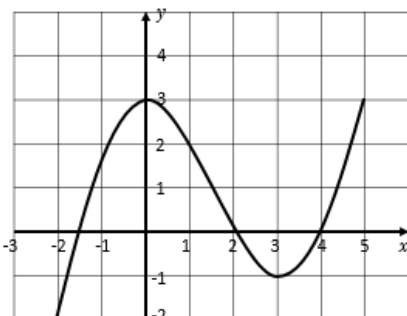
Answer: _____

2) Simplify fully

$$\frac{x^3 - 9x}{2x + 6}$$

Answer: _____

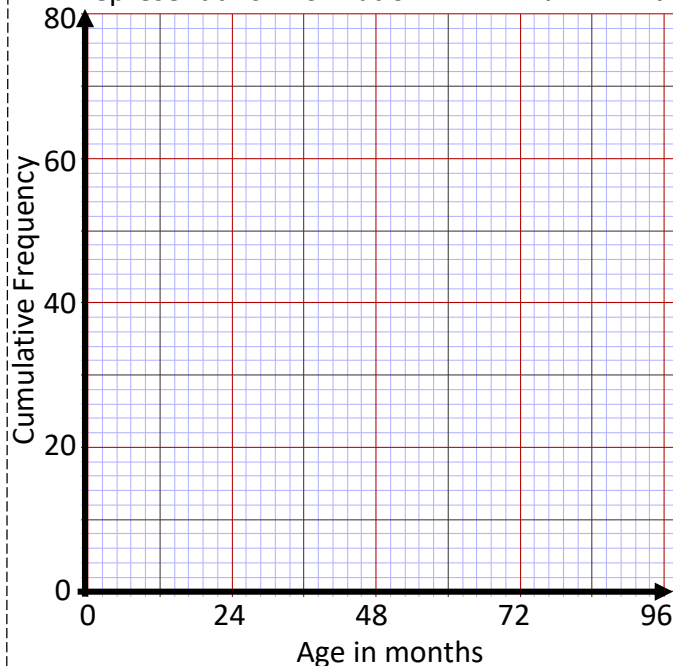
3) Here is the graph of the function $f(x)$. Draw the graph $f(x) + 2$



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

Age (A) in months	Frequency		
$0 < A \leq 12$	7		
$12 < A \leq 48$	12		
$48 < A \leq 60$	23		
$60 < A \leq 72$	13		
$72 < A \leq 96$	5		

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

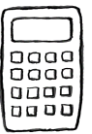
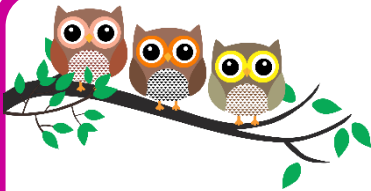


b) Estimate the number of rabbits who are older than 36 months. **(2 marks)**

Answer: _____

Q	Topic	Σ	R	A	G
1	Proportion Problem				
2	Difference of two squares				
3	Transformation Graph				
4	Cumulative Frequency				

Higher Interleaving Quiz



Branch 8 Quiz 2

- 1) The population of bunny rabbits decreased by 12% due to an outbreak of myxomatosis. After the outbreak there were 1.32 million bunnies. How many were there before the outbreak. **(3 marks)**

Answer: _____

- 2) a) Show that $x^3 + 7x - 2 = 55$ has a solution between 3 and 4. **(2 marks)**

An approximate solution to an equation is found by using this iterative process.

$$X_n = \sqrt[3]{57 - 7X_n}$$

And $X_0 = 3$

- b) Work out the values of X_1 and X_2 . **(2 marks)**

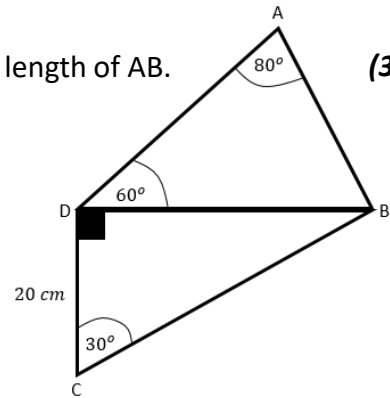
X_1 : _____

X_2 : _____

- c) Work out the solution to 3 decimal places. **(1 mark)**

Answer: _____

- 3) Find the length of AB. **(3 marks)**



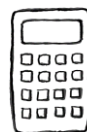
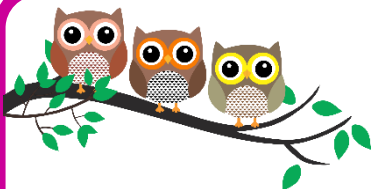
Answer: _____

- 4) Bunny rabbits hopped a race to decide which bunnies should be allowed to be the Easter Bunny. It was decided anyone below the mean average time would not be allowed to be an Easter bunny. Calculate the qualification time. **(4 marks)**

Time (t) in mins	Frequency
$0 < t \leq 10$	8
$10 < t \leq 15$	15
$15 < t \leq 20$	17
$20 < t \leq 30$	0

Q	Topic	Σ	R	A	G
1	Reverse Percentage				
2	Iteration				
3	Trigonometry				
4	Averages from a Table				

Higher Interleaving Quiz



Branch 8 Quiz 3

1) Express $0.\dot{2}\dot{3}$ as a fraction in its simplest form.

(3 marks)

Answer: _____

2) a) Solve $5x + 12 \geq 8$

(2 marks)

Answer: _____

b) Solve $14 - 2x < 23$

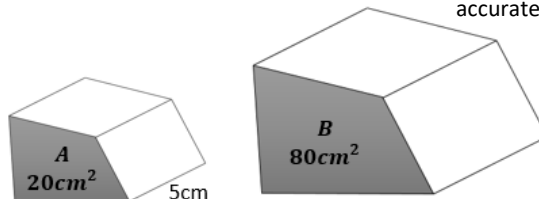
(2 marks)

Answer: _____

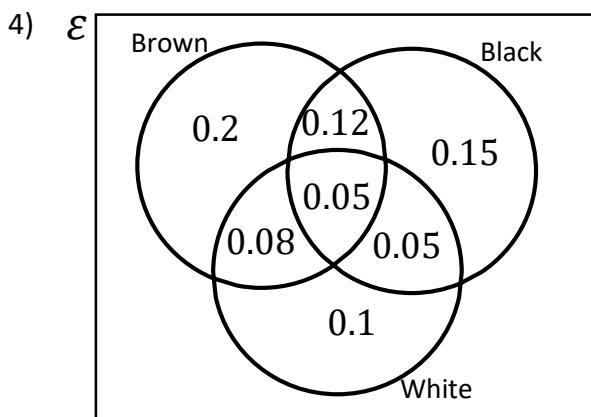
3) Below are two bunny hutches. Calculate the volume of hutch B.

(5 marks)

Diagram NOT accurately drawn



Answer: _____



The Venn Diagram shows some of the different colours of fur bunnies have.

A sample of 420 bunnies is taken. Calculate the proportion of the bunnies that do not have any brown, black or white fur.

Answer: _____

Q	Topic	Σ	R	A	G
1	Recurring Decimals				
2	Inequalities				
3	Similar Shapes				
4	Venn Diagrams				