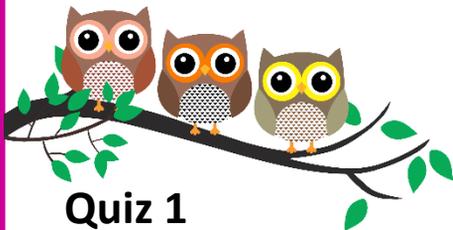


Higher Interleaving Quiz

Branch 11

Quizzes 1 to 3



Quiz 1

Q	Topic	Σ	R	A	G
1	Standard Form				
2	Functions				
3	Transformations				
4	Probability				

Home Study Focus

Home Study
Completed

Quiz 2

Q	Topic	Σ	R	A	G
1	Proportion				
2	Simultaneous Equations				
3	PAV problem				
4	Averages from a Table				

Home Study Focus

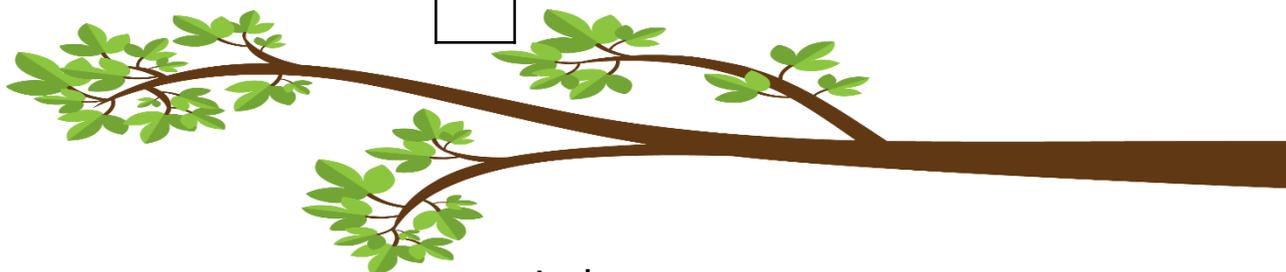
Home Study
Completed

Quiz 3

Q	Topic	Σ	R	A	G
1	Recurring Decimals				
2	Regional Inequalities				
3	Circle Theorems				
4	Histogram				

Home Study Focus

Home Study
Completed



Higher Interleaving Quiz



Branch 11 Quiz 1

1) Place the following numbers in ascending order:

$$0.308 \times 10^4, \quad 30.8 \times 10^3, \\ 3.8 \times 10^3, \quad 8.2 \times 10^{-2}$$

(2 marks)

2) $f(x) = 2x - 4$ and $g(x) = 3x^2$

a) Find $f^{-1}(x)$

(2 marks)

Answer: _____

b) Find $fg(x)$

(2 marks)

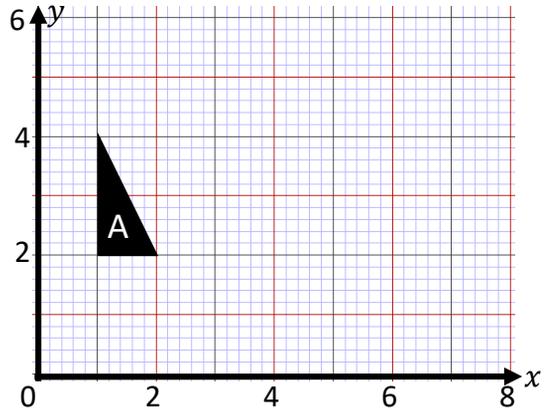
Answer: _____

b) Find the value of x when $fg(x) = 50$

(2 marks)

Answer: _____

3)



a) Reflect A in the line $x = 3$.

Label the new shape B.

(2 marks)

b) Rotate B 90° Anti-Clockwise from the point

(6,3). Label the new shape C.

(1 mark)

4) A bag contains counters that are blue, red, pink and green.

A counter is chosen at random.

The probability it is red is $\frac{3}{20}$.

Work out the probability it is pink.

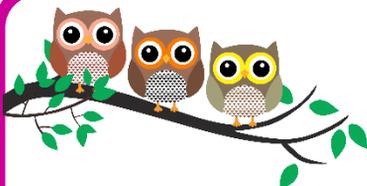
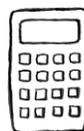
(4 marks)

	Blue	Red	Pink	Green
Number of Counters	$4x + 5$	15	$5x$	$7x$

Answer: _____

Q	Topic	Σ	R	A	G
1	Standard Form				
2	Functions				
3	Transformations				
4	Probability				

Higher Interleaving Quiz



Branch 11 Quiz 2

1) y is inversely proportion to the square of x .

$y = 5$ when $x = 3$

Find the value of y when $x = 5$

(4 marks)

Answer: _____

2) Miss B buys 22 bags of sweets for her form class.

There are x bags that cost 10p each.

There are y bags that cost 8p each.

a) Write down an equation connecting x and y .

(1 mark)

Answer: _____

b) The total cost of the bags is £1.92.

Use algebra to work out the values of x and y .

You must show your working out.

(4 marks)

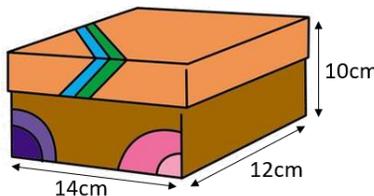
$x =$ _____

$y =$ _____

3) A school are planting a time capsule.

Will the Calculator fit inside the time capsule box?

(3 marks)



Answer: _____

4) There are 250 runners in the borders half marathon.

(3 marks)

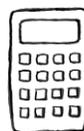
Time (t) in mins	Frequency
$80 < t \leq 120$	60
$120 < t \leq 140$	90
$140 < t \leq 180$	100
$t > 180$	0

Estimate the mean time

Answer: _____

Q	Topic	Σ	R	A	G
1	Proportion				
2	Simultaneous Equations				
3	PAV problem				
4	Averages from a Table				

Higher Interleaving Quiz



Branch 11 Quiz 3

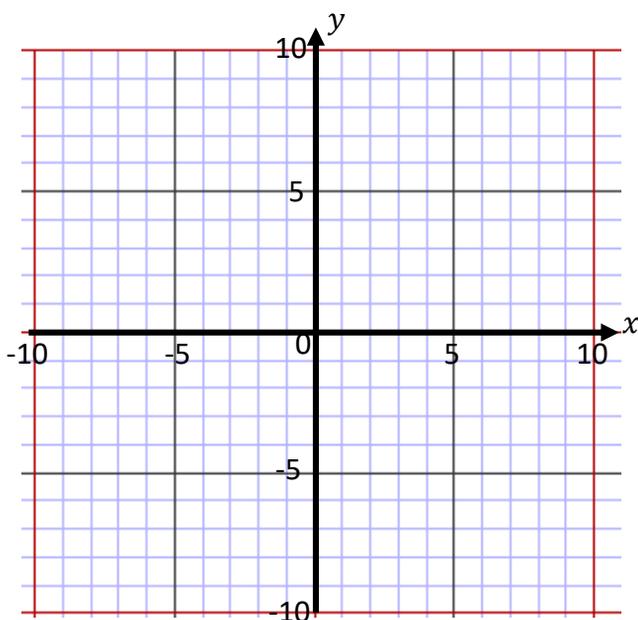
1) Express $0.3\dot{4}\dot{5}$ as a fraction in its simplest form.

(3 marks)

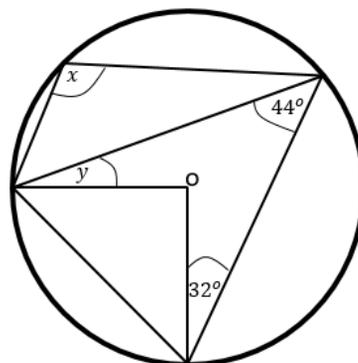
Answer: _____

2) On the grid shade the region that satisfies all three of these inequalities. (3 marks)

$$-4 < x < 6, \quad y > -8 \quad \text{and} \quad y > \frac{x}{2} + 1$$



3)

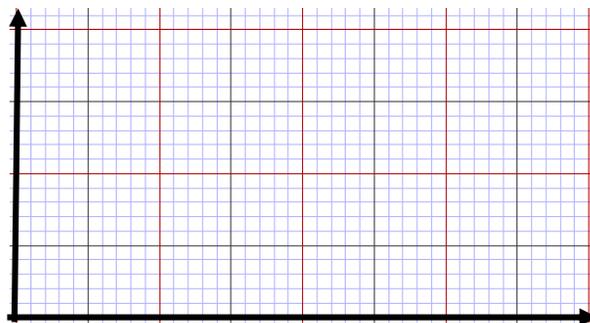


Find the size of the missing angles x and y . Give reasons for your answers. (6 marks)

$$x = \underline{\hspace{2cm}} \quad y = \underline{\hspace{2cm}}$$

4) Draw a histogram to represent the information. (3 marks)

Time (t) in mins	Frequency
$50 < t \leq 60$	8
$60 < t \leq 65$	9
$65 < t \leq 80$	15



Q	Topic	Σ	R	A	G
1	Recurring Decimals				
2	Regional Inequalities				
3	Circle Theorems				
4	Histogram				