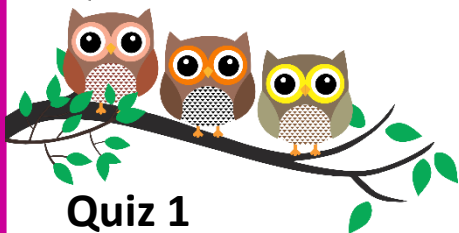


# Higher Interleaving Quiz

## Branch 10

### Quizzes 1 to 3



#### Quiz 1

Q	Topic	$\Sigma$	R	A	G
1	Product of Prime Factors				
2	Inequalities				
3	Transformations				
4	Cumulative Frequency				

#### Home Study Focus

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Home Study  
Completed

#### Quiz 2

Q	Topic	$\Sigma$	R	A	G
1	Reverse Percentage				
2	Simultaneous Equations				
3	Trigonometry				
4	Scatter Graph				

#### Home Study Focus

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Home Study  
Completed

#### Quiz 3

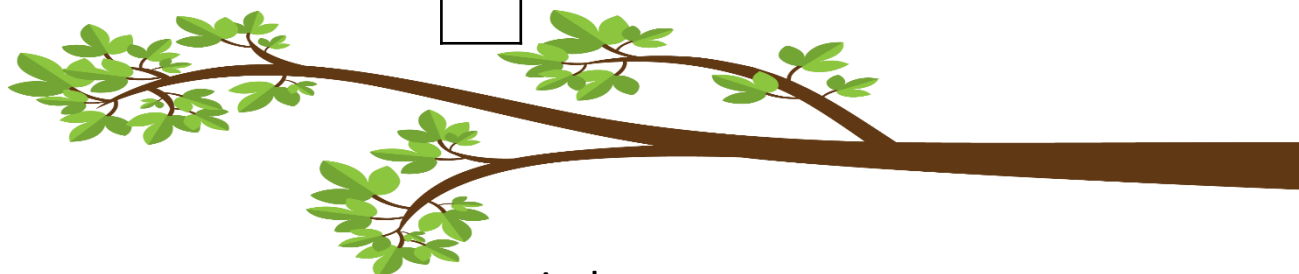
Q	Topic	$\Sigma$	R	A	G
1	Recurring Decimals				
2	Algebraic Fractions				
3	Similar Shapes				
4	Histogram				

#### Home Study Focus

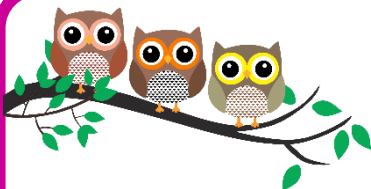
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Home Study  
Completed



# Higher Interleaving Quiz



## Branch 10 Quiz 1

1) Express 520 as a product of its prime factors.

(3 marks)

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Answer: \_\_\_\_\_

2) Solve  $12 - \frac{1}{3}x < 5$

(3 marks)

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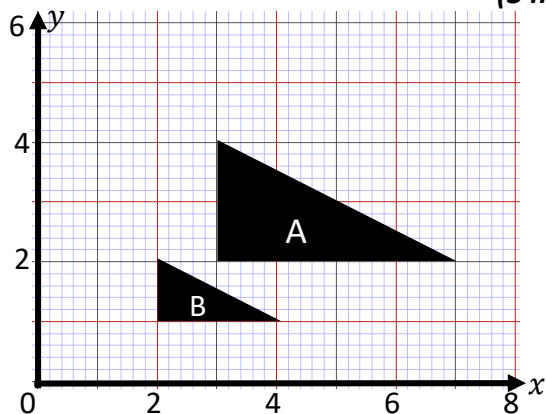


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Answer: \_\_\_\_\_

3) Describe fully the transformation of A onto B

(3 marks)




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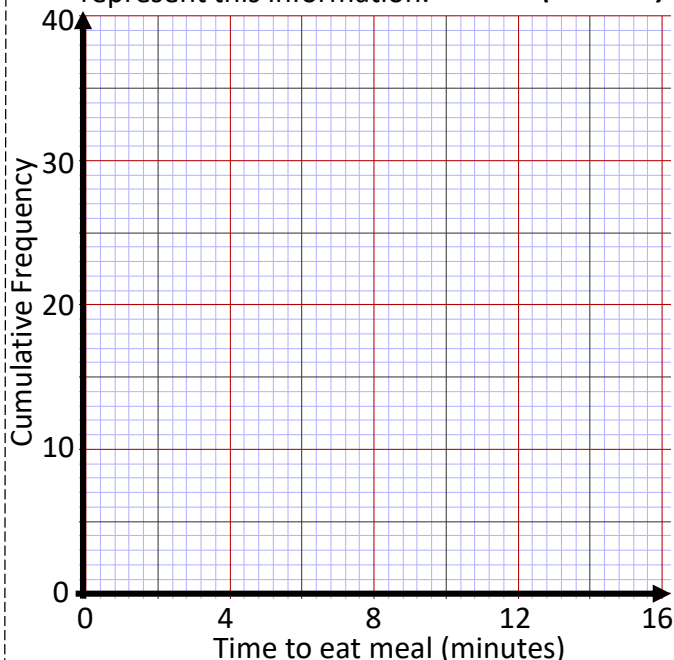
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4) On James farm the times that 40 cows took to eat their food are given in the frequency table.

Time ( $t$ ) in mins	Frequency		
$0 < t \leq 2$	5		
$2 < t \leq 4$	7		
$4 < t \leq 6$	14		
$6 < t \leq 10$	10		
$10 < t \leq 16$	4		

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

(3 marks)



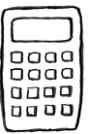
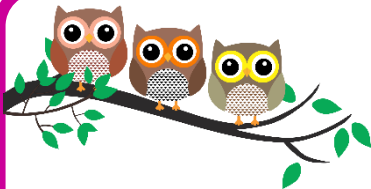
b) Use your graph to find an estimate for the interquartile range.

(3 marks)

Answer: \_\_\_\_\_

Q	Topic	$\Sigma$	R	A	G
1	Product of Prime Factors				
2	Inequalities				
3	Transformations				
4	Cumulative Frequency				

# Higher Interleaving Quiz



## Branch 10 Quiz 2

- 1) James farm unfortunately was caught up in the bovine spongiform encephalopathy outbreak in 1993, more commonly known as mad cow disease. This left him with 120 cows, which was 24% of his herd. How many cows did he have before the outbreak. **(2 marks)**

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Answer: \_\_\_\_\_

- 2) James buys 60 bags of feed for his farm  
There are  $x$  bags that weigh 2 kg.  
There are  $y$  bags that weigh 3 kg.

- a) Write down an equation connecting  $x$  and  $y$ . **(1 mark)**

Answer: \_\_\_\_\_

- b) The total weight of the bags is 165 kg.  
Use algebra to work out the values of  $x$  and  $y$ .  
You must show your working out. **(4 marks)**

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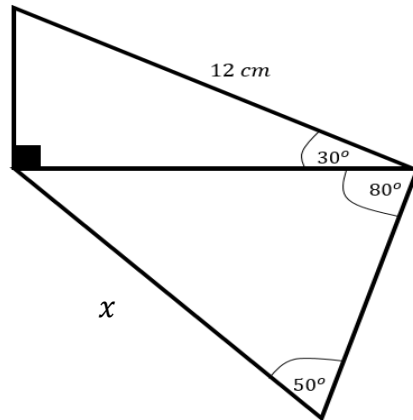


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$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_

- 3) Find the length of side  $x$ .

**(5 marks)**




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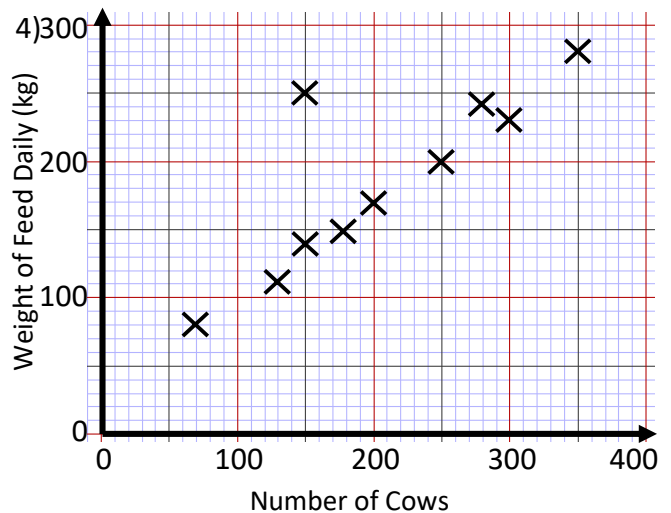


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Answer: \_\_\_\_\_

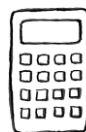
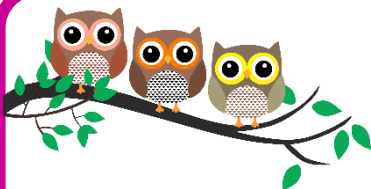


- a) Circle the result that is an anomaly. **(1 mark)**

- b) James has 120 cows. Estimate how much feed he will need to buy each week. **(2 marks)**

Q	Topic	$\Sigma$	R	A	G
1	Reverse Percentage				
2	Simultaneous Equations				
3	Trigonometry				
4	Scatter Graph				

# Higher Interleaving Quiz



## Branch 10 Quiz 3

- 1) Express  $0.\dot{1}\dot{6}$  as a fraction in its simplest form.

(2 marks)

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Answer: \_\_\_\_\_

- 2) Simplify

$$\frac{x+3}{3x} \div \frac{x^2-3}{2x^2}$$

(4 marks)

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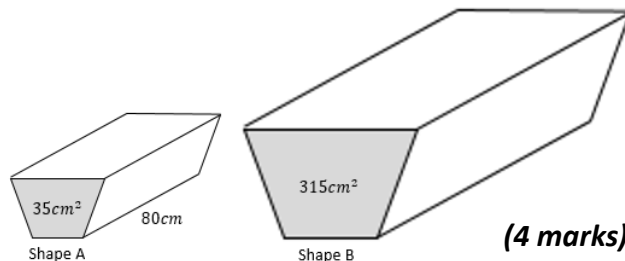
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Answer: \_\_\_\_\_

- 3) Mr Moohan needs to calculate the volume of trough B. Both troughs are similar shapes.



(4 marks)

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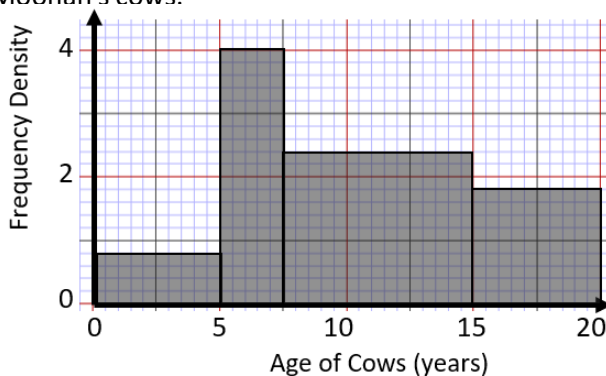
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Answer: \_\_\_\_\_

- 4) The histogram below shows the age of some of Mr Moohan's cows.



- a) How many cows are there all together?

Answer: \_\_\_\_\_

- b) How many cows are older than 12 years.

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Answer: \_\_\_\_\_

Q	Topic	$\Sigma$	R	A	G
1	Recurring Decimals				
2	Algebraic Fractions				
3	Similar Shapes				
4	Histogram				