



# Foundation Interleaving Quiz

## Branch 2 Quiz 1



1) Estimate the value of

(2 marks)

$$\frac{3.79 \times 18.4}{0.453}$$

$$4 \times 20 = 80$$

Answer:

$$160$$

2) a) Factorise  $20x + 12y - 8z$

(1 mark)

$$4(5x + 3y - 2z)$$

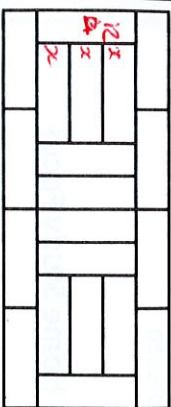
b) Factorise  $x^2 - 8x + 7$

(2 marks)

$$(x-1)(x-7)$$

3) A shape is made from using 20 congruent rectangles. Calculate the area of the shape.

(4 marks)



Not drawn accurately

$$48 \div 4 = 12$$

length

$$12 \div 3 = 4 \text{ cm}$$

$$\text{Area} = 12 \times 4 = 48 \text{ cm}^2$$

$$48 \times 20 = 960$$

Answer:

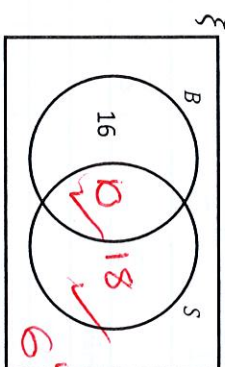
$$960 \text{ cm}^2$$

4) 50 students were asked in a survey whether they had a brother or sister.

$\xi = 50$  students

$B = \text{Brother}$

$S = \text{Sister}$



- 26 have a brother
- 28 have a sister
- 16 have a brother but not a sister.

a) Complete the Venn Diagram.

(3 marks)

$$50 - 44 = 6$$

b) One person is chosen at random. Write down  $P(B \cup S)$

(1 marks)

$$\frac{44}{50}$$

c) What percentage of the students have both a brother and sister? (2 marks)

$$\frac{16}{50} \times 2 = \frac{100}{100}$$

$$\text{Answer: } 20\%$$

Q	Topic	$\Sigma$	R	A	G
1	Estimation				
2	Factorise				
3	Area Problem				
4	Venn Diagram				



# Foundation Interleaving Quiz

## Branch 2 Quiz 2



1) At a school students take part in a survey about their lunch arrangements. school dinners : packed lunches = 5:3

a) What fraction of the school have packed lunches? Circle your answer. (1 mark)

$$\frac{5}{8} \quad \frac{2}{3} \quad \frac{3}{5}$$

b) There are 128 more students who have school dinners than packed lunches. Work out the total number of students in the school. (3 marks)

$$128 \div 2 = 64$$

$$64 \times 8 = 512$$

2) a) Expand  $4(2x - 5)$

(1 mark)

$$\text{Answer: } 8x - 20$$

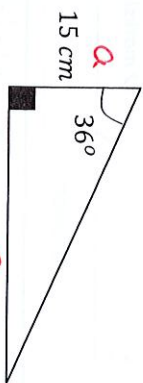
b) Expand and simplify  $5x - (2x + 4)$

(2 marks)

$$5x - 2x - 4$$

$$\text{Answer: } 3x - 4$$

3) Work out the length of side  $x$ . Give your answer to 3 significant figures. (3 marks)



$$\tan(36) = \frac{x}{15}$$

$$15 \times \tan(36)$$

Answer:

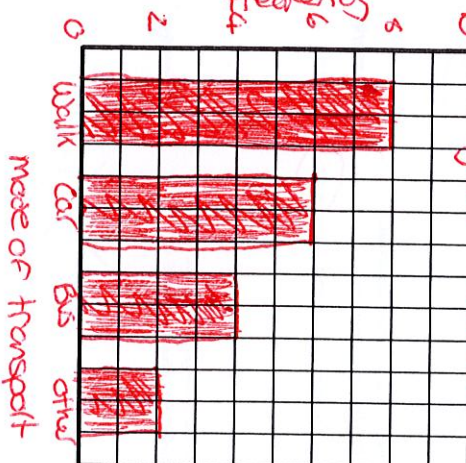
$$10.89 \text{ cm}$$

4) The table shows how 20 students travel to school.

Walk	Car	Bus	Other
8	6	4	2

a) Draw a bar chart to show this information.

heights scale (4 marks)



b) Which method of transport was the mode? (1 mark)

$$\text{Answer: } \text{Walk}$$

Q	Topic	$\Sigma$	R	A	G
1	Ratio Problem				
2	Expand and simplify				
3	Right Angled Trigonometry				
4	Charts and Averages				

# Foundation Interleaving Quiz

## Branch 2 Quiz 3



1) What is  $\frac{2}{5}$  as a percentage.  
Circle your answer.

2.5%      20%      25%      **40%**

(1 mark)

b) Write 0.7 as a percentage.  
Circle your answer.

0.07%      0.7%      7%      **70%**

(1 mark)

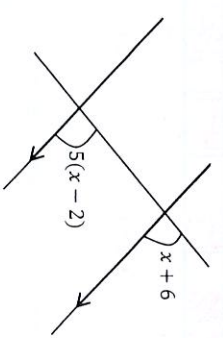
c) Write 125% as a decimal.  
Circle your answer

0.125      1.025      **1.25**      12.5

(1 mark)

2) Three straight lines are shown.  
Work out the value of  $x$ .

(4 marks)



$$5(x-2) = x+6$$

$$5x - 10 = x + 6$$

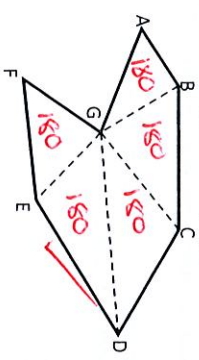
$$4x - 10 = 6$$

$$4x = 16$$

$$x = 4 \text{ cm}$$

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

3) The polygon ABCDEFG is divided into triangles as shown. Use the triangles to work out the sum of the interior angles of the polygon ABCDEFG.



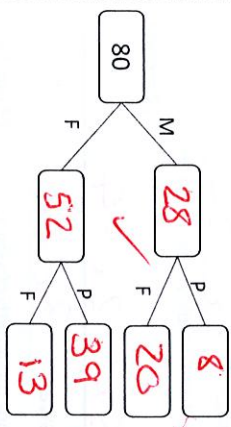
$$180 \times 5 = 900^\circ$$

(3 marks)

Answer: **900°**

4) 80 people took a test.  
52 people were female.  
13 females failed.  
47 people passed in total.

(3 marks)



b) What proportion of males passed the test?

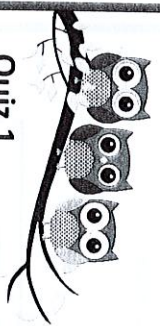
$$\frac{8}{28} = \frac{2}{7}$$

Answer: **28.6%**

Q	Topic	Σ	R	A	G
1	Fractions, Decimals & Percentages				
2	Form and Solve Equations				
3	Angle Problem				
4	Frequency Tree				

# Foundation Interleaving Quiz

## Branch 2 Quizzes 1 to 3



### Quiz 1

Q	Topic	Σ	R	A	G
1	Estimation				
2	Factorise				
3	Area Problem				
4	Venn Diagram				

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	Charts and Averages				

Home Study Focus

Home Study Completed

### Quiz 3

Q	Topic	Σ	R	A	G
1	Fractions, Decimals & Percentages				
2	Form and Solve Equations				
3	Angle Problem				
4	Frequency Tree				

Home Study Focus

Home Study Completed