Name :
Group : S8
Date : 08-03-2021

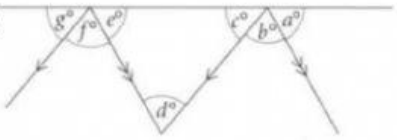
Total points : /67

1 The table below lists some common fractions, decimals and percentages. Copy and complete the table. (12 points, 1 each)

Fraction	$\frac{3}{4}$				$\frac{2}{5}$	
Decimal		0.8		0.3		
Percentage	%	%	20%	%	%	50%

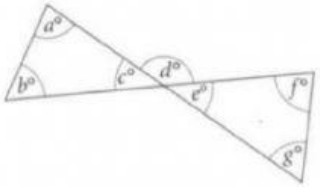
2) Give reasons for each of these statements. (4 points, 1 each)

a $a = e$ **b** $b = d$
c $g = c$ **d** $f = d$



3 Read what Jake says. What are the two angles he is thinking of? (2 points)

The total of two of these angles is the same as d.



4 Find the values of a and b. (3 points, 1.5 each)
Give reasons for your answers.

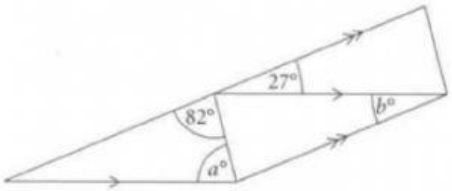


Diagram not drawn accurately

$a°$ = °
$b°$ = °

5 Write the correct sign, < or >, between each pair. (3 points, 1 each)

a 3.65 ☐ 3.56 **b** 9.01 ☐ 9.1 **c** 42 mm ☐ 0.5 cm

6 Write these fractions in order of size, smallest first.
Show your working. (2 points)

$\frac{11}{20}$ $\frac{5}{8}$ $\frac{3}{5}$ $\frac{1}{2}$

< < <

7 Work out these additions and subtractions. (6 points, 1 each)
Write each answer in its simplest form.

a $\frac{1}{4}+\frac{5}{8}=$ **b** $\frac{9}{10}-\frac{2}{5}=$ **c** $\frac{5}{7}+\frac{2}{3}=$ **d** $\frac{2}{3}-\frac{1}{4}=$ **e** $2\frac{5}{6}+3\frac{1}{4}=$ **f** $4\frac{1}{2}-2\frac{5}{9}=$

8 Ashley takes part in a discus competition. (4 points, 2 each)
In the first round he throws the discus a distance of 27.29 m.
In the second round he throws the discus a distance of 29.73 m.
Work out:
a the sum of the two distances he has thrown
b the difference in the two distances he has thrown.

9) Anna is 1.6 m tall. She stands next to a lamppost. (2 points)
She estimates that the lamppost is $2\frac{1}{2}$ times as tall as she is. How tall is the post?

10) Here are the weights of some kittens, measured to the nearest gram. (10 points, 2 each)

155	171	200	195	230	205	208	180
185	198	212	190	205	175	210	224

a Copy and complete the grouped frequency table.
b How many of the kittens weigh more than 170 g but less than or equal to 190 g?
c How many of the kittens weigh more than 190 g?
d How many of the kittens weigh less than or equal to 210 g?
e Altogether, how many kittens were weighed?

Weight, w (g)	Tally	Frequency
$150 < w \leq 170$		
$170 < w \leq 190$		
$190 < w \leq 210$		
$210 < w \leq 230$		
	Total	

11) Work these out. (4 points, 1 each)
a $41 \times 0.1 =$ **b** $23 \times 0.01 =$ **c** $7.2 \div 0.1 =$ **d** $0.24 \div 0.01 =$

12) Caroline is a nurse. She keeps a record of the total number of kilometres she travels to visit her patients each day. (5 points, 2.5 each)
The distances she travels during one week are shown in the box.

Monday	64 km	Tuesday	88 km
Wednesday	52 km	Thursday	72 km
Friday	100 km		

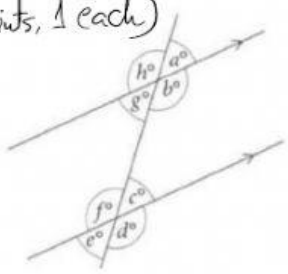
a How many miles has Caroline travelled in this week?
b Caroline is paid 40 cents for each mile she travels.
This is to pay for the fuel she uses.
Work out the amount Caroline is paid this week for the fuel she uses. Give your answer in dollars.

Remember that there are 100 cents in $1.

13) Which metric units would you use to measure the following? (6 points, 1 each)

a the length of a car park
b the length of an eyelash
c the mass of a motorbike
d the mass of a banana
e the capacity of a egg cup
f the capacity of a refrigerator

14) Look at the diagram and complete these sentences. (4 points, 1 each)



a Two vertically opposite angles are *c* and ....
b Two corresponding angles are *h* and ....
c Two alternate angles are *g* and ....
d Two angles that add up to 180° are *c* and ....