1 Complete each calculation.

a) 16 – 25 = ☐

b) 36 – 42 = ☐

c) 29 – 55 = ☐

d) 57 – 68 = ☐

1
4 marks

2 Find the difference between each pair of numbers.

a) (15) (–3) ☐

b) (–14) (9) ☐

c) (–28) (28) ☐

d) (20) (–10) ☐

2
4 marks

3 Ollie went to Canada for work. When he left Manchester the temperature was 4°C. When he arrived in Canada it was 7 degrees cooler than Manchester. What was the temperature in Canada?

☐

4 Ollie's hotel room is on the 23rd floor. The hotel lobby is on floor 0. Ollie parks his hire car on level –6 of the hotel's underground car park. How many floors does Ollie have to travel in the lift to get from his car to his room?

☐

3
1 mark

4
1 mark

5 Use the BODMAS rule to answer these calculations. Show your working out.

a) 15 + (14 − 8) = ☐

b) 6 × (8 + 4) = ☐

c) 130 − 8 × 10 = ☐

d) 140 + 25 ÷ 5 = ☐

e) (14 − 8) × (5 + 4) = ☐

f) 75 − 50 ÷ 2 = ☐

5
6 marks

6 Fabio bought a house for £398 495. The house needs renovating and Fabio has been told that this will cost £152 550. Fabio's total budget is £500 000. By how much over- or under-budget will Fabio be?

☐

6
2 marks

7 Part of the renovation cost on the house that Fabio has bought is for replacing windows. There are 12 windows that need replacing, each costing £1879.50. After paying for the new windows, how much of the £152 550 renovation costs will be left for other work on the house?

☐

7
2 marks

Total: out of 20 Mastery: NYA A A&E

1 Solve these missing number equations by working out the value of the letter. Show any working out.

a) $52 - t = 38$ $t =$ ☐

b) $55 + f = 92$ $f =$ ☐

c) $12r = 84$ $r =$ ☐

d) $8h + 66 = 90$ $h =$ ☐

1
4 marks

2 There are 8 tins of baked beans in a supersaver pack. How many tins are there in

a) 6 packs? ☐ **b)** 10 packs? ☐ **c)** n packs? ☐

2
3 marks

3 There are 9 bags of crisps in a family pack. If C is the total number of bags of crisps, write a formula to show how many bags there are in p packs.

$C = 9p$

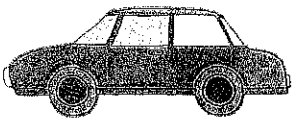
3
1 mark

4 The number of miles = 60 times the number of gallons.

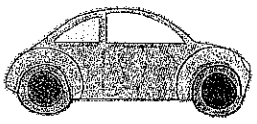
a) Write a formula for the number of miles (M) for each gallon (g) of petrol.

$M = 60g$ (or $M = 60 \times g$)

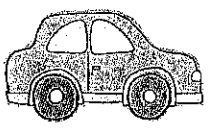
b) Use the formula to calculate how far each car travelled.
Show your working out.



i) 6 gallons



ii) 3·2 gallons

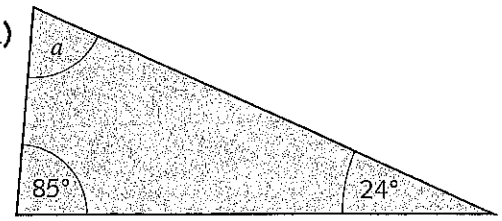


iii) 0·8 gallons

4
4 marks

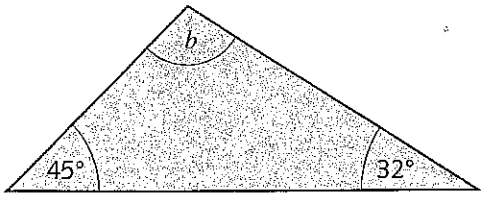
2 Calculate the size of the missing angle in each triangle.

a)



$a =$ ☐

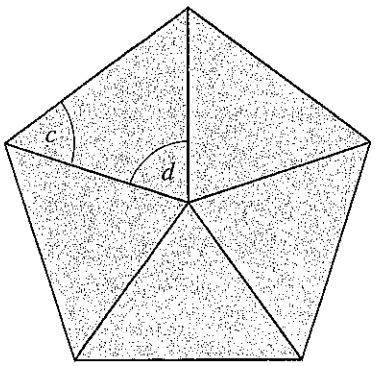
b)



$b =$ ☐

2
4 marks

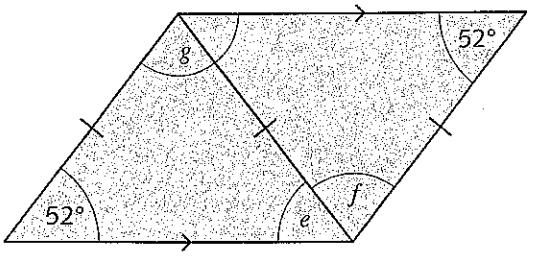
3 The angles in a regular pentagon measure 108°. Calculate the value of angles c and d.



$c =$ ☐ $d =$ ☐

3
2 marks

4 Calculate the value of angles e, f and g.



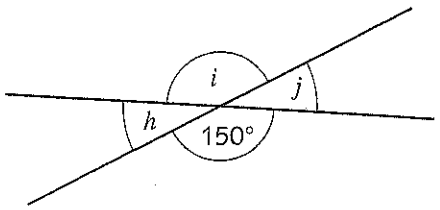
$e =$ ☐ $f =$ ☐

$g =$ ☐

4
2 marks

5 Calculate the size of each unknown angle. Show your working out.

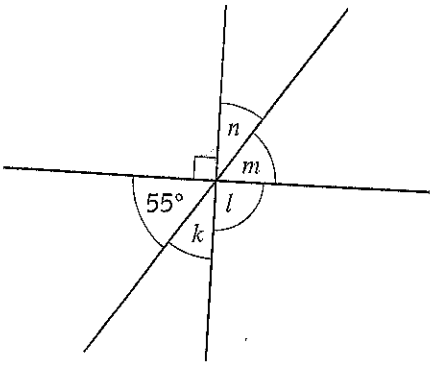
a)



$h =$ ☐ $i =$ ☐

$j =$ ☐

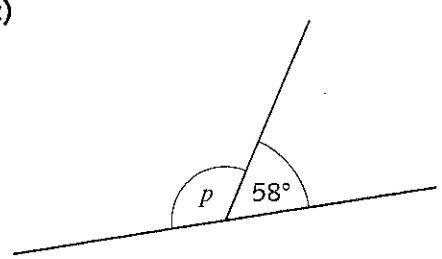
b)



$k =$ ☐ $l =$ ☐

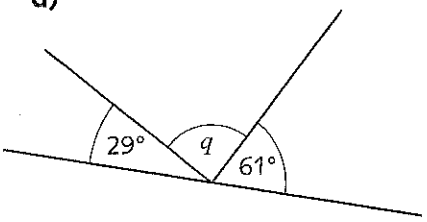
$m =$ ☐ $n =$ ☐

c)



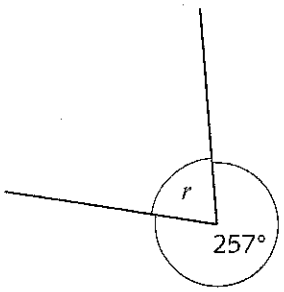
$p =$ ☐

d)



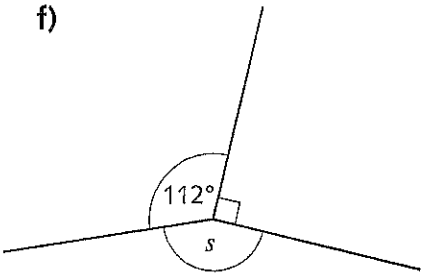
$q =$ ☐

e)



$r =$ ☐

f)



$s =$ ☐

5
6 marks