Name: _____ **Date:** _____

1 Complete each calculation.

a) 16 − 25 = −9

b) 36 − 42 = −6

c) 29 − 55 = −26

d) 57 − 68 = −11

1 4 marks

2 Find the difference between each pair of numbers.

a) 15 –3 → 18

b) –14 9 → 23

c) –28 28 → 56

d) 20 –10 → 30

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?

−3 °C

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?

29 floors

3 1 mark

4 1 mark

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

a) 15 + (14 − 8) = 21

b) 6 × (8 + 4) = 72

c) 130 − 8 × 10 = 50

d) 140 + 25 ÷ 5 = 145

e) (14 − 8) × (5 + 4) = 54

f) 75 − 50 ÷ 2 = 50

5
6 marks

Award 2 marks per question for the correct answer. If the answer is incorrect, award 1 mark for identifying the correct calculation(s).

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?

£51 045 over budget

(£398 495 + £152 550 = £551 045)

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?

£129 996

£152 550 − (12 x £1879.50)
= £152 550 − £22 554
= £129 996

6
2 marks

7
2 marks

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

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Name: _____ **Date:** _____

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

a) $52 - t = 38$ **b)** $55 + f = 92$ **c)** $12r = 84$ **d)** $8h + 66 = 90$

$t =$ 14 $f =$ 37 $r =$ 7 $h =$ 3

1 — 4 marks

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

a) 6 packs? 48 **b)** 10 packs? 80 **c)** n packs? $8n$

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.

$M = 60g$

b) Use the formula to calculate how far each car travelled.

Show your working out.

i) 6 gallons

360 miles

ii) 3·2 gallons

192 miles

iii) 0·8 gallons

48 miles

4 — 4 marks

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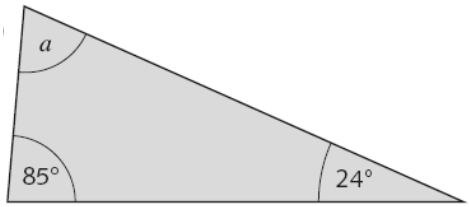
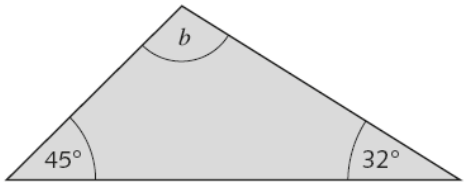
2 Calculate the size of the missing angle in each triangle.

a)



a = 71°

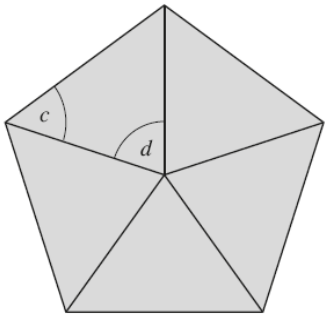
b)



b = 103°

2
4 marks

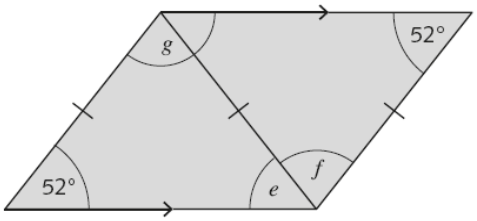
3 The angles in a regular pentagon measure 108°. Calculate the value of angles c and d.



c = 54° d = 72°

3
2 marks

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



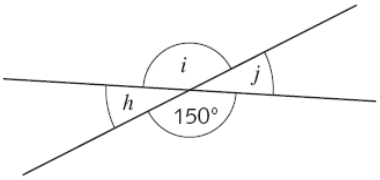
e = 52° f = 76°

g = 76°

4
2 marks

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

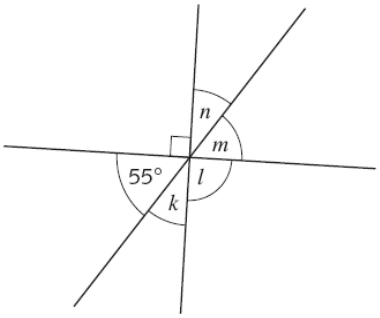
a)



h = 30° i = 150°

j = 30°

b)



k = 35° l = 90°

m = 55° n = 35°

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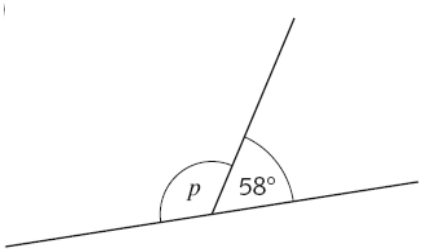
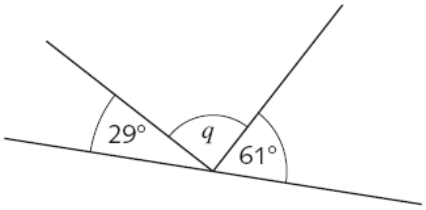
c)



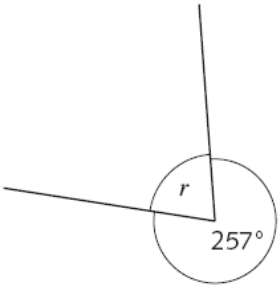
p = 122°

d)



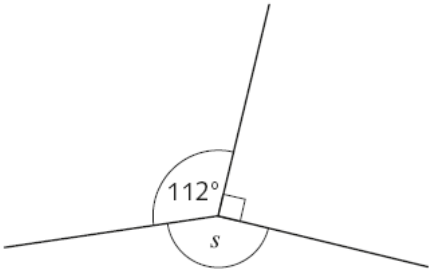
q = 90°

e)



r = 103°

f)



s = 158°

5

6 marks

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