Writing an Expression

Exam Style Questions

1. (a) The price of an apple is a pounds.
Write down an expression for the price of 3 apples.

£ 3a ..... (1)

(b) The price of a banana is b pounds.
The price of a carrot is c pounds.
Write down an expression for the price of 3 bananas and 2 carrots.

£ 3b+2c ..... (1)

(2 marks)

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2. (a) Charlie has x sweets.
Daniel has 4 more sweets than Charlie.
Write down an expression for the number of sweets Daniel has.

..... x+4 ..... (1)

(b) Yusif has 6 less sweets than Charle.
Find an expression for the **total** number of sweets Charlie, Daniel and Yusif have.
Give your answer in simplest form.

C : x
D : x+4
Y : x-6

x + x + 4 + x - 6

..... 3x - 2 ..... (2)

(3 marks)

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3. A cup of tea costs £t. A cup of coffee costs £c. Write down an expression for the cost of 9 cups of tea and 4 cups of coffee.

£ 9t + 4c (1 mark)

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4. Harry has h sweets. He gives 4 to Jasmine. How many sweets does Harry have now?

h - 4 (1 mark)

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5. (a) Jamie gets paid £x for every hour he works.
Last week he worked for 20 hours.
Write down an expression for the amount Jamie earned last week.

£ 20x (1)

(b) When Jamie works more than 25 hours, he gets paid overtime.
Jamie gets £15 for every hour he works overtime.
Jamie worked 40 hours this week.
Find an expression for the amount he got paid this week.

Normal : 25x

Overtime : 40 - 25 = 15

15 × 15 = 225

£ 25x + 225 (2)

(3 marks)

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6. Melissa has n bags of counters. Each bag contains m counters. Write down an expression for the total number of counters Melissa has.

nm …….. (1 mark)

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7. A bus takes x minutes to get from Bexley to Dartford. The train takes three times less time. Write down an expression for the amount of time the train takes.

$\frac{x}{3}$ …….. (1 mark)

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8. Anton is x years old. His sister Bella is three years older. Callum is three times as old as Bella. Find an expression for the sum of their ages. Give your answer in simplest form.

A: x

B: $x+3$

C: $3(x+3) = 3x+9$

Total $= x + x + 3 + 3x + 9$

$= 5x + 12$

$5x+12$ …….. (2 marks)

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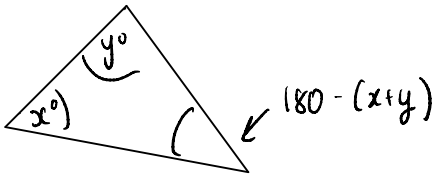
9. In an triangle, one of the angles measures x degrees.
   One of the angles measures y degrees.
   Find an expression for size of the third angle.



180 - (x+y)
or 180 - x - y ..... degrees (2 marks)

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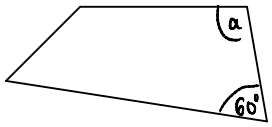
10. In a quadrilateral, one of the angles measures 60 degrees.
    One of the angles measures a degrees.
    Find an expression for the sum of the other two angles.



360 - (a + 60)
= 300 - a

300 - a ..... degrees (2 marks)

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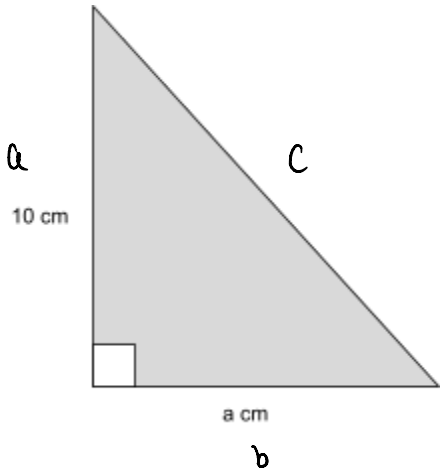
11. In the below right angled triangle, one of the sides is $10cm$.
    One of the sides is $a\ cm$.
    Find an expression for the hypotenuse.



Using pythagoras

$a^2 + b^2 = c^2$

$(10)^2 + (a)^2 = c^2$

$a^2 + 100 = c^2$

$c = \sqrt{a^2 + 100}$

$\sqrt{a^2 + 100}$ ..... cm (3 marks)
