

Name: _____

GCSE (1 – 9)

Writing an Expression

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

Information

- The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

- 1 An adult cinema ticket costs £ x
The price of a child's ticket is half the price of an adult ticket

Write an expression for the price, in pounds, of a child's ticket.

$$\text{£ } \frac{x}{2}$$

(Total for Question 1 is 1 mark)

- 2 Charles has m marbles.
Rosalind has 6 more marbles than Charles

Write an expression for the number of marbles Rosalind has.

$$m + 6$$

(Total for Question 2 is 1 mark)

- 3 A cup of tea costs £ t
A cup of coffee costs £ c

Write an expression, in pounds, for the cost of 5 cups of tea and 4 cups of coffee.

$$\text{£ } 5t + 4c$$

(Total for Question 3 is 1 mark)

- 4 Albert is given n sweets.
He eats 5 of the sweets.
Write an expression for the number of sweets Albert now has.

$$n - 5$$

(Total for Question 4 is 1 mark)

- 5 Michael is paid $\pounds x$ for each hour he works.
One week Michael works for 20 hours.

Write an expression for the total amount, in pounds, Michael is paid for this week.

$$\pounds \quad 20x$$

(Total for Question 5 is 1 mark)

- 6 Alex has b bags of marbles.
Each bag contains m marbles.

Write an expression, in terms of b and m , for the total number of marbles Alex has.

$$bm$$

(Total for Question 6 is 1 mark)

- 7 A train takes t minutes to get from London to Canterbury

The same journey by car takes 50 minutes longer.

Write an expression for the amount of time, in minutes, it takes to travel from London to Canterbury by car.

$$t + 50 \text{ minutes}$$

(Total for Question 7 is 1 mark)

- 8 A school charges $\pounds 5$ for tickets to a show.

The school raises $\pounds x$ in total from ticket sales.

Write an expression for the total number of tickets sold by the school.

$$\frac{x}{5}$$

(Total for Question 8 is 1 mark)

- 9 Isaac is x years old.
Marie is twice as old as Isaac.
Write an expression for Marie's age.

$$2x$$

(Total for Question 9 is 1 mark)

- 10 Apples costs 30p each.
Write an expression for the cost of a apples.

$$30a$$

pence

(Total for Question 10 is 1 mark)

- 11 Stephen is n years old.
Rachel is 10 years older than Stephen
(a) Write an expression for Rachel's age.

$$n + 10$$

(1)

Tim is 13 years younger than Stephen.

- (b) Write an expression for Tim's age.

$$n - 13$$

(1)

- (c) Write an expression for the total age of Stephen, Rachel and Tim.

$$n + n + 10 + n - 13$$

$$3n - 3$$

(2)

(Total for Question 11 is 4 marks)

- 12 Tea bags are sold in small boxes and large boxes.
There are 100 tea bags in a small box.
There are 240 tea bags in a large box.

Mae buys x small boxes and y large boxes of tea bags.

Write an expression for the total number of tea bags Mae buys.

$$\underline{100x + 240y}$$

(Total for Question 12 is 2 marks)

- 13 In Rugby Union a team scores:
5 points for each try
2 points for each conversion
3 points for each penalty

A team scores t tries, c conversions and p penalties.

Write an expression for the total number of points the team scores.

$$\underline{5t + 2c + 3p}$$

(Total for Question 13 is 2 marks)

- 14 Apples cost 25p each.
Bananas cost 20p each.

The total cost of a apples and b bananas is C .

Write a **formula** for the total cost of a apples and b bananas.

$$\underline{C = 25a + 20b}$$

pence

(Total for Question 14 is 2 marks)

- 15 A child's ticket to see a show costs $\pounds x$
An adult's ticket costs $\pounds 5$ more than a child's ticket.

(a) Write an expression for the price, in pounds, of an adults ticket.

$$\pounds \quad x + 5$$

(b) Write an expression for the cost of one adult's ticket and two child's tickets.

(1)

$$x + 5 + 2x$$

$$\pounds \quad 3x + 5$$

(2)

(Total for Question 15 is 3 marks)

- 16 A shop sells toilet rolls in small packs and big packs.
There a 4 toilet rolls in a small pack.
There are 9 toilet rolls in a big pack.

The shop has s small packs and b big packs of toilet roll.

(a) Write an expression for the **total number of packs** of toilet roll the shop has.

$$s + b$$

(b) Write an expression for the total number of toilet rolls the shop has.

(1)

$$4s + 9b$$

(2)

(Total for Question 16 is 3 marks)