

## ALGEBRAIC EXPRESSIONS

- 1) Write an expression for the total cost of *p* pens if each pen costs £2.
- 2) Write an expression for the total length of a rope if each section is *m* metres long and there are 5 sections.
- 3) A box contains *n* apples. Write an expression for the number of apples in 4 boxes.
- 4) An adult ticket to the cinema costs £t. A children's ticket costs £5 less than an adult ticket. Write an expression for the cost of a children's ticket.
- 5) Tom has *n* sweets. James has 8 more sweets than Tom. Write an expression for the number of sweets James has.
- 6) A banana costs *x* pence and an orange costs *y* pence. Write an expression for the total cost of 2 bananas and 3 oranges.
- 7) A bottle costs £b and a container costs £p. Write an expression for the cost of 5 bottles and 2 containers.
- 8) A taxi charges £3 plus £1.50 for every mile travelled. Write an expression for the total cost of a journey of m miles.
- 9) A cinema charges £6 per adult ticket and £4 per child ticket. Write an expression for the total cost of *a* adult tickets and *c* child tickets.
- 10) A rectangle has length *l* cm and width *w* cm. Write an expression for its perimeter.
- 11) A farmer sells eggs in boxes. Each box contains *e* eggs, and the farmer has *b* boxes. Write an expression for the total number of eggs.

- 12) A school buys n notebooks at £1.20 each and p pens at 50p each. Write an expression for the total cost.
- 13) A coach trip costs £100 plus £x per person for entry tickets. Write an expression for the total cost for n people.
- 14) A rectangle has length 3 cm longer than its width w. Write an expression for its perimeter.
- 15) A person has p pens. They buy 4 more and then give away g pens. Write an expression for the number of pens they have left.
- 16) A train ticket costs £t. There is a booking fee of £2 per order. Write an expression for the total cost of buying n tickets.
- 17) A rectangle has a length of 2x cm and a width of (x + 4) cm. Write an expression for its area.
- 18) A car rental costs £40 per day plus £0.20 for each mile driven. Write an expression for the cost of hiring the car for *d* days and driving *m* miles.
- 19) In a game of darts, a player can score:20 points for hitting a single digit30 points for hitting a double digit40 points for hitting a triple digit50 points for a bullseye

In a game of darts, a player hits x single digits, y triple digits and z bullseyes.

Write an expression for the number of points the player scores.

20) Charlie is x years old. Maria is 5 years older than Charlie. Sam is twice as old as Maria. Write a fully simplified expression for the sum of their ages