**1.** Seamus travelled 120 miles in 3 hours.

What was his average speed in miles per hour (mph)?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 360 mph | 40 mph | 36 mph | 4 mph | 30 mph |
| **A** | **B** | **C** | **D** | **E** |

**2.**

Diagram NOT accurately drawn

6 cm

10 cm

What is the area of this triangle?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 60 cm2 | 15 cm2 | 30 cm2 | 16 cm2 | 8 cm2 |
| **A** | **B** | **C** | **D** | **E** |

**3.** Which is the best estimate for the value of

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 38 | 40 | 400 | 4000 | 1003 |
| **A** | **B** | **C** | **D** | **E** |

**4.** Sweets cost 5 pence each.

Shamonti buys *x* sweets.

What is the expression, in terms of x, for the total cost?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *x* |  | *x +* 5 |  | 5 *x* |
| **A** | **B** | **C** | **D** | **E** |

**5.** What is *2a + 5b + 3a – 2b* written in its simplest form?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *5a + 7b* | *12ab* | 8*ab* | *5a – 3b* | *5a + 3b* |
| **A** | **B** | **C** | **D** | **E** |

**6.** The Lowest Common Multiple (LCM) of 21 and 35 is

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 7 | 105 | 210 | 1 |
| **A** | **B** | **C** | **D** | **E** |

1. Given that 4.5 × 5.5 = 24.75

What is the value of 0.45 × 550?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0.2475 | 2.475 | 24.75 | 247.5 | 2475 |
| **A** | **B** | **C** | **D** | **E** |

8. Factorise *x*2 *-* 4*x*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *x(x –* 4*x*) | *x(x –* 4) | *x(x*2 *–* 4*x*) | *(x* + 2)(*x* – 2) | 2(*x* – 2) |
| **A** | **B** | **C** | **D** | **E** |

**9.** *(x* + 3)(*x* + 4) =

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *x*2 *–* 7*x* + 7 | *x*2+ 12 | 2*x* + 7 | *x2* + 7*x* + 12 | *x*2+ 7*x* + 7 |
| **A** | **B** | **C** | **D** | **E** |

**10.** Here are the first five terms of an arithmetic sequence.

2 9 16 23 30

What is the expression, in terms of *n,* for the *n*th term of this sequence?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 7*n* + 2 | 7*n* – 5 | *n* + 7 | *7n* | *n –* 5 |
| **A** | **B** | **C** | **D** | **E** |

**11.**

*x*

*O*

*y*

*S (6, 5)*

*R (4, 1)*

Diagram NOT accurately drawn

Which are the coordinates of the midpoint of the line *RS* ?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (1, -3) | (10, 6) | (2, 4) | (5, 3) | (1, 2) |
| **A** | **B** | **C** | **D** | **E** |

**12** Expand 2(3*x* + 4)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6*x* + 4 | 5*x* + 6 | 14*x* | 5*x* + 8 | 6*x* + 8 |
| **A** | **B** | **C** | **D** | **E** |