Name

Algebraic Functions - Quadratic to Sum and Product

1 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 12x + 32 = (x + a)(x + b)$$

A	B	C	D
$a + b = 32$ $a \times b = 12$	$a + b = 12$ $a \times b = 32$	$a + b = 24$ $a \times b = 32$	$a + b = 12$ $a \times b = 64$

2 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 10x + 24 = (x + a)(x + b)$$

A	B	C	D
$a + b = 24$ $a \times b = 10$	$a + b = 10$ $a \times b = 24$	$a + b = 10$ $a \times b = 48$	$a + b = 20$ $a \times b = 24$

3 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 5x + 6 = (x + a)(x + b)$$

A	B	C	D
$a + b = 5$ $a \times b = 6$	$a + b = 6$ $a \times b = 5$	$a + b = 10$ $a \times b = 6$	$a + b = 5$ $a \times b = 12$

4 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 9x + 18 = (x + a)(x + b)$$

A	B	C	D
$a + b = 18$ $a \times b = 9$	$a + b = 9$ $a \times b = 18$	$a + b = 18$ $a \times b = 18$	$a + b = 9$ $a \times b = 36$

5 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 13x + 42 = (x + a)(x + b)$$

A	B	C	D
$a + b = 42$ $a \times b = 13$	$a + b = 13$ $a \times b = 42$	$a + b = 13$ $a \times b = 84$	$a + b = 26$ $a \times b = 42$

6 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 7x + 6 = (x + a)(x + b)$$

A	B	C	D
$a + b = 7$ $a \times b = 12$	$a + b = 14$ $a \times b = 6$	$a + b = 6$ $a \times b = 7$	$a + b = 7$ $a \times b = 6$

7 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 6x + 5 = (x + a)(x + b)$$

A	B	C	D
$a + b = 6$ $a \times b = 10$	$a + b = 12$ $a \times b = 5$	$a + b = 5$ $a \times b = 6$	$a + b = 6$ $a \times b = 5$

8 What is true about 'a' and 'b' for this quadratic?

$$x^2 + 2x + 0 = (x + a)(x + b)$$

A	B	C
$a + b = 4$ $a \times b = 0$	$a + b = 0$ $a \times b = 2$	$a + b = 2$ $a \times b = 0$