



Math worksheet on 'Algebraic Functions - Factor the Quadratic Equation (Level 1)'. Part of a broader unit on 'Polynomials and Quadratics - Advanced'

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**2** Which answer is the same expression as this

$$b^2 + 5b + 6$$

- |          |                   |          |                   |
|----------|-------------------|----------|-------------------|
| <b>a</b> | $(b + 2)(b - 3)$  | <b>b</b> | $(b - 2)(6b + 3)$ |
| <b>c</b> | $(b - 2)(b - 3)$  | <b>d</b> | $(b + 2)(b + 3)$  |
| <b>e</b> | $(1b - 2)(b + 3)$ | <b>f</b> | $(6b - 2)(b + 3)$ |

**4** Which answer is the same expression as this

$$z^2 + 5z + 6$$

- |          |                   |          |                   |
|----------|-------------------|----------|-------------------|
| <b>a</b> | $(z + 3)(z - 2)$  | <b>b</b> | $(z - 3)(z - 2)$  |
| <b>c</b> | $(6z - 3)(z + 2)$ | <b>d</b> | $(1z - 3)(z + 2)$ |
| <b>e</b> | $(z - 3)(6z + 2)$ | <b>f</b> | $(z + 3)(z + 2)$  |

**6** Which answer is the same expression as this

$$y^2 + 8y + 15$$

- |          |                   |          |                    |
|----------|-------------------|----------|--------------------|
| <b>a</b> | $(2y - 5)(y + 3)$ | <b>b</b> | $(y - 5)(15y + 3)$ |
| <b>c</b> | $(y + 5)(y + 3)$  | <b>d</b> | $(y + 5)(y - 3)$   |
| <b>e</b> | $(y - 5)(y - 3)$  | <b>f</b> | $(15y - 5)(y + 3)$ |

**1** Which answer is the same expression as this

$$p^2 + 10p + 24$$

- |          |                    |          |                    |
|----------|--------------------|----------|--------------------|
| <b>a</b> | $(p - 6)(24p + 4)$ | <b>b</b> | $(24p - 6)(p + 4)$ |
| <b>c</b> | $(p + 6)(p - 4)$   | <b>d</b> | $(p + 6)(p + 4)$   |
| <b>e</b> | $(2p - 6)(p + 4)$  | <b>f</b> | $(p - 6)(p - 4)$   |

**3** Which answer is the same expression as this

$$c^2 + 7c + 12$$

- |          |                    |          |                    |
|----------|--------------------|----------|--------------------|
| <b>a</b> | $(c - 4)(c - 3)$   | <b>b</b> | $(1c - 4)(c + 3)$  |
| <b>c</b> | $(c - 4)(12c + 3)$ | <b>d</b> | $(c + 4)(c - 3)$   |
| <b>e</b> | $(c + 4)(c + 3)$   | <b>f</b> | $(12c - 4)(c + 3)$ |

**5** Which answer is the same expression as this

$$c^2 + 9c + 20$$

- |          |                    |          |                    |
|----------|--------------------|----------|--------------------|
| <b>a</b> | $(c - 4)(20c + 5)$ | <b>b</b> | $(c + 4)(c + 5)$   |
| <b>c</b> | $(c + 4)(c - 5)$   | <b>d</b> | $(20c - 4)(c + 5)$ |
| <b>e</b> | $(c - 4)(c - 5)$   | <b>f</b> | $(1c - 4)(c + 5)$  |

**7** Which answer is the same expression as this

$$r^2 + 10r + 21$$

- |          |                    |          |                   |
|----------|--------------------|----------|-------------------|
| <b>a</b> | $(r + 7)(r - 3)$   | <b>b</b> | $(r - 7)(r - 3)$  |
| <b>c</b> | $(r - 7)(21r + 3)$ | <b>d</b> | $(4r - 7)(r + 3)$ |
| <b>e</b> | $(21r - 7)(r + 3)$ | <b>f</b> | $(r + 7)(r + 3)$  |