

A-20. Užitím vzorce $(a \pm b)^2$ umocněte závorku.

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|---|---|
| a) $(-b + 2c)^2 = \underline{b^2 - 4bc + 4c^2}$ | h) $(-x + 9)^2 = \underline{x^2 - 18x + 81}$ |
| b) $(-ab + 8)^2 = \underline{a^2b^2 - 16ab + 64}$ | i) $(-2y - z)^2 = \underline{4y^2 + 4yz + z^2}$ |
| c) $(-b - 4c)^2 = \underline{b^2 + 8bc + 16c^2}$ | j) $(-3 + a)^2 = \underline{9 - 6a + a^2}$ |
| d) $(-x + 2y)^2 = \underline{x^2 - 4xy + 4y^2}$ | k) $(-5x - 3y)^2 = \underline{25x^2 + 30xy + 9y^2}$ |
| e) $(-4x - 2z)^2 = \underline{16x^2 + 16xz + 4z^2}$ | l) $(-u - 4v)^2 = \underline{u^2 + 8uv + 16v^2}$ |
| f) $(-a + 7b)^2 = \underline{a^2 - 14ab + 49b^2}$ | m) $(+5a - 3b)^2 = \underline{25a - 30ab + 9b^2}$ |
| g) $(-a - 2e)^2 = \underline{a^2 + 4ae + 4e^2}$ | n) $(-p + 9q)^2 = \underline{p^2 - 18pq + 81q^2}$ |

A-21. Užitím vzorce $a^2 \pm 2ab + b^2 = (a \pm b)^2$ upravte výraz.

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| a) $x^2 + 2xy + y^2 = \underline{(x + y)^2}$ | b) $r^2 + 2rs + s^2 = \underline{(r + s)^2}$ | c) $16s^2 - 8s + 1 = \underline{(4s - 1)^2}$ |
| $c^2 + 2cd + d^2 = \underline{(c + d)^2}$ | $t^2 + 2ts + s^2 = \underline{(t + s)^2}$ | $p^2 - 14p + 49 = \underline{(p - 7)^2}$ |
| $x^2 + 2x + 1 = \underline{(x + 1)^2}$ | $z^2 + 2z + 1 = \underline{(z + 1)^2}$ | $r^2 - 20r + 100 = \underline{(r - 10)^2}$ |
| $a^2 + 10a + 25 = \underline{(a + 5)^2}$ | $z^2 - 6z + 9 = \underline{(z - 3)^2}$ | $y^2 - 2y + 1 = \underline{(y - 1)^2}$ |
| $p^2 + 2pq + q^2 = \underline{(p + q)^2}$ | $c^2 - 2cd + d^2 = \underline{(c - d)^2}$ | $4z^2 - 4z + 1 = \underline{(2z - 1)^2}$ |
| $u^2 + 2uv + v^2 = \underline{(u + v)^2}$ | $4p^2 - 4pq + q^2 = \underline{(2p - q)^2}$ | $16a^2 - 8a + 1 = \underline{(4a - 1)^2}$ |

A-22. Užitím vzorce $a^2 \pm 2ab + b^2 = (a \pm b)^2$ upravte výraz.

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| a) $1 - 2a + a^2 = \underline{(1 - a)^2}$ | b) $c^2 - 8c + 16 = \underline{(c - 4)^2}$ | c) $16e^2 + 8e + 1 = \underline{(4e + 1)^2}$ |
| $a^2 - 4ab + 4b^2 = \underline{(a - 2b)^2}$ | $x^2 - 10x + 25 = \underline{(x - 5)^2}$ | $4d^2 + 16d + 16 = \underline{(2d + 4)^2}$ |
| $x^2 - 4xy + 4y^2 = \underline{(x - 2y)^2}$ | $z^2 - 16z + 64 = \underline{(z - 8)^2}$ | $a^2b^2 + 2ab + 1 = \underline{(ab + 1)^2}$ |
| $4x^2 - 4x + 1 = \underline{(2x - 1)^2}$ | $p^2 - 8p + 16 = \underline{(p - 4)^2}$ | $a^2c^2 - 2ac + 1 = \underline{(ac - 1)^2}$ |
| $a^2 - 4ac + 4c^2 = \underline{(a - 2c)^2}$ | $4a^2 - 4a + 1 = \underline{(2a - 1)^2}$ | $16 - 16a + 4a^2 = \underline{(4 - 2a)^2}$ |
| $4 - 4b + b^2 = \underline{(2 - b)^2}$ | $4c^2 - 8c + 4 = \underline{(2c - 2)^2}$ | $49 - 14ab + a^2b^2 = \underline{(7 - ab)^2}$ |

A-23. Užitím vzorce $a^2 \pm 2ab + b^2 = (a \pm b)^2$ upravte výraz.

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| a) $4c^2 - 4c + 1 = \underline{(2c - 1)^2}$ | b) $b^2 - 4ab + 4a^2 = \underline{(b - 2a)^2}$ | c) $1 - 2r + r^2 = \underline{(1 - r)^2}$ |
| $1 - 2ab + a^2b^2 = \underline{(1 - ab)^2}$ | $9c^2 - 24c + 16 = \underline{(3c - 4)^2}$ | $9e^2 + 18e + 9 = \underline{(3e + 3)^2}$ |
| $25 + 40a + 16a^2 = \underline{(5 + 4a)^2}$ | $x^2y^2 - 4xy + 4 = \underline{(xy - 2)^2}$ | $4a^2 - 4ac + c^2 = \underline{(2a - c)^2}$ |
| $x^2y^2 + 2xyz + z^2 = \underline{(xy + z)^2}$ | $49 + 28x + 4x^2 = \underline{(7 + 2x)^2}$ | $4b^2 + 12ab + 9a^2 = \underline{(2b + 3a)^2}$ |
| $x^2 + 10xy + 25y^2 = \underline{(x + 5y)^2}$ | $y^2 + 18y + 81 = \underline{(y + 9)^2}$ | $x^2 - 10xy + 25y^2 = \underline{(x - 5y)^2}$ |
| $a^2 + 8ab + 16b^2 = \underline{(a + 4b)^2}$ | $b^2 - 4bc + 4c^2 = \underline{(b - 2c)^2}$ | $9m^2 - 18mn + 9n^2 = \underline{(3m - 3n)^2}$ |

A-24. Porozumění vzorce $a^2 \pm 2ab + b^2 = (a \pm b)^2$ si ověříte nejlépe na doplňovačce.

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| a) $(1 + \underline{a})^2 = \underline{1} + 2a + \underline{a^2}$ | b) $(\underline{y} - 5)^2 = \underline{y^2} - 10y + \underline{25}$ |
| $(\underline{x} + 3)^2 = \underline{x^2} + \underline{6x} + \underline{9}$ | $(a - \underline{2b})^2 = \underline{a^2} - 4ab + \underline{4b^2}$ |
| $(\underline{a} - 2)^2 = \underline{a^2} - \underline{4a} + \underline{4}$ | $(\underline{2a} - \underline{3b})^2 = \underline{4a^2} - 12ab + \underline{9b^2}$ |