

Homework 32.2

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Solve each equation by completing the square.

1) $x^2 - 2x - 26 = -2$

2) $n^2 - 6n - 43 = -6$

3) $r^2 - 20r + 80 = -4$

4) $m^2 - 12m - 96 = -2$

Simplify. Your answer should contain only positive exponents.

5) $x^{-2} \cdot 2xy^2 \cdot xy^3$

6) $ab^4 \cdot 4a^0$

7) $(2x^{-1} \cdot 2x^{-3}y^3)^3$

8) $(2m^{-1} \cdot m^{-2}n^0)^{-1}$

Answers to Homework 32.2

1) $\{6, -4\}$

2) $\{3 + \sqrt{46}, 3 - \sqrt{46}\}$

3) $\{14, 6\}$

4) $\{6 + \sqrt{130}, 6 - \sqrt{130}\}$

5) $2y^5$

6) $4ab^4$

7) $\frac{64y^9}{x^{12}}$

8) $\frac{m^3}{2}$