

Simplifying Radicals with Variables



Level 1 - Simplify radicals involving integers and variables

Level 2 - Simplify radicals of higher degree

Answers:

Level 1

| | | |
|---------------------|--------------------|-------------------------|
| a) 4 | b) 2 | c) 5 |
| d) 13 | e) 1 | f) i (or no solution) |
| g) 8 | h) $4\sqrt{5}$ | i) $3\sqrt{5}$ |
| j) $6n$ | k) $7\sqrt{x}$ | l) $8xy$ |
| m) $10a^2b\sqrt{2}$ | n) $5m\sqrt{3n}$ | o) $4y\sqrt{6xy}$ |
| p) $8x^2\sqrt{6x}$ | q) $-6mn\sqrt{2m}$ | r) $-8pqr^2\sqrt{6q}$ |

Level 2

| | | |
|--------------------------|------------------------|-------------------------|
| a) 2 | b) 3 | c) 2 |
| d) 1 | e) -1 | f) -4 |
| g) $2x$ | h) $3xy\sqrt[3]{xy^2}$ | i) $2y\sqrt[5]{x}$ |
| j) $-2n^2\sqrt[3]{6n}$ | k) $5n^2\sqrt[3]{2}$ | l) $3x\sqrt[4]{8x}$ |
| m) $4p^2q^4r\sqrt[4]{2}$ | n) $-2xy^2\sqrt[5]{7}$ | o) $-10a\sqrt[6]{4a^2}$ |