# Radicals - Multiplying Monomials (Values and Variables) over Integer

**1** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{12t^4} \cdot \sqrt{27t}}{3}$$

| A | B | C | D | E |
|---|---|---|---|---|
| $18t^3$ | $t^2\sqrt{t}$ | $6t^2\sqrt{t}$ | $18t^2$ | $18t^2\sqrt{t}$ |

**2** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{80q^2} \cdot \sqrt{20}}{5}$$

| A | B | C | D | E |
|---|---|---|---|---|
| $40$ | $40q^2$ | $q$ | $40q$ | $8q$ |

**3** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{32t^4} \cdot \sqrt{18t^2}}{3}$$

| A | B | C | D | E |
|---|---|---|---|---|
| $24t^3\sqrt{t}$ | $24t^2\sqrt{t}$ | $8t^3$ | $24t^2$ | $24t^3$ |

**4** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{18q} \cdot \sqrt{32}}{3}$$

| A | B | C | D | E |
|---|---|---|---|---|
| $24$ | $72\sqrt{q}$ | $8\sqrt{q}$ | $24q$ | $2$ |

**5** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{8y^3} \cdot \sqrt{32}}{2}$$

| A | B | C | D |
|---|---|---|---|
| $4\sqrt{y}$ | $4y\sqrt{y}$ | $16y^2\sqrt{y}$ | $8y\sqrt{y}$ |

**6** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{75m^4} \cdot \sqrt{27m^2}}{5}$$

| A | | B | |
|---|---|---|---|
| $180m^3$ | | $45m^4$ | |
| C | | D | |
| $9m^3$ | | $45m^2\sqrt{m}$ | |

**7** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{20} \cdot \sqrt{80}}{2}$$

| A | B | C | D |
|---|---|---|---|
| $10$ | $120$ | $20$ | $40$ |

**8** Multiply the radical expressions and simplify the answer

$$\frac{\sqrt{75x^2} \cdot \sqrt{12x^2}}{3}$$

| A | B | C | D | E |
|---|---|---|---|---|
| $10x^2$ | $30x^2\sqrt{x}$ | $3x^2\sqrt{x}$ | $150x^2$ | $30x^2$ |