

7/8 $(16x^4y^8z)^{3/4}$
 $(\sqrt[4]{16x^4y^8z})^3$
 $(2^2 \cdot 2^2 \cdot y^2 \cdot \sqrt[4]{z})^3$
 $8x^3y^6\sqrt[4]{z^3}$

12) $3\sqrt{80} - 5\sqrt{45}$
 $3 \cdot 2 \cdot 2 \sqrt{5} - 5 \cdot 3 \sqrt{5}$
 $12\sqrt{5} - 15\sqrt{5} = -3\sqrt{5}$

Simplify:

$(3x^2 - 3x + 5) + (-2x^2 - 3x - 7)$
 $x^2 - 6x - 2$

Find the product:

$$-3x(2x^3 + 2x^2)$$

$$-6x^4 - 6x^3$$

Find the product:

$$(3x-3)(3x+3)$$

$$9x^2 - 9$$

$$\begin{array}{r} 3x - 3 \\ 3x \begin{array}{|c|c|} \hline 9x^2 & -9x \\ \hline \end{array} \\ + 3 \begin{array}{|c|c|} \hline 9x & -9 \\ \hline \end{array} \end{array}$$

Simplify:

$$(-2t^2r^3)^3$$

$$(-2)^3 (t^2)^3 (r^3)^3$$

$$\boxed{-8 t^6 r^9}$$

Simplify:

$$\left(\frac{a^2}{2b^{-3}c^2}\right)^3$$

$$\frac{a^6}{8 b^{-9} c^6}$$

$$\frac{(a^2)^3}{(2)^3 (b^{-3})^3 (c^2)^3}$$

$$= \boxed{\frac{a^6 b^9}{8 c^6}}$$

Simplify:

$$\sqrt{64ab^6c^9}$$

$$2 \cdot 2 \cdot 2 b^3 c^4 \sqrt{ac}$$

$$\boxed{8b^3c^4\sqrt{ac}}$$

Simplify:

$$(16x^8y^4)^{\frac{1}{4}}$$

$$\sqrt[4]{16x^8y^4}$$

$$= \boxed{2x^2y}$$

Evaluate:

$64^{\frac{2}{3}}$

$$(4)^2 = \boxed{16}$$

$$\begin{array}{c} \left(\sqrt[3]{64} \right)^2 \\ \wedge \\ 8 \quad 8 \\ \wedge \quad \wedge \\ 4 \quad 2 \quad 2 \quad 4 \\ \wedge \quad \wedge \quad \wedge \quad \wedge \\ 2 \quad 2 \quad 2 \quad 2 \end{array}$$

Simplify:

$$3\sqrt{5} + 6\sqrt{5} = 9\sqrt{5}$$

Simplify:

$$2\sqrt{32} + 5\sqrt{8}$$

$2 \cdot 4\sqrt{2}$ $\sqrt{8} = 4\sqrt{2}$

$8\sqrt{2} + 5 \cdot 2\sqrt{2}$

$8\sqrt{2} + 10\sqrt{2} = 18\sqrt{2}$

Find the product:

$$(3+2i)(4-i)$$

	$3 + 2i$	
4	12	$8i$
$-i$	$-3i$	$-2i^2$

$-2(-1)$

$12 + 5i + 2$

$14 + 5i$

10/1

$$\begin{aligned}(-4i)(2i) &= -8i^2 \\ &= -8(-1) \\ &= 8\end{aligned}$$

In standard $a + bi$ form, identify the value of b in the following expression:

$$15 + \sqrt{-8}$$

4 2
2 2

$$15 + 2i\sqrt{2}$$

$$b = 2\sqrt{2}$$
$$a = 15$$

