

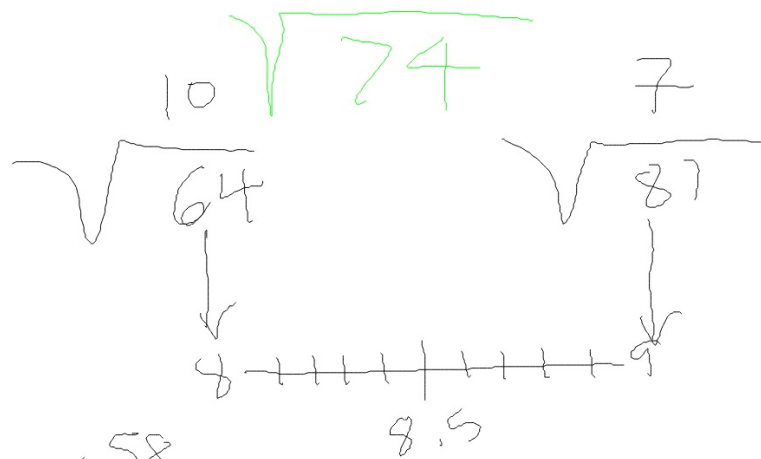
$$\frac{11}{15}$$

$$\begin{array}{r} .73 \\ 15 \overline{) 11.00} \\ \underline{+ 05} \downarrow \\ 50 \end{array}$$

$$\sqrt{60} \approx 8$$

$\textcircled{11}$ $\textcircled{4}$

$$\begin{array}{c} \sqrt{49} \qquad \sqrt{64} \\ | \qquad \qquad | \\ 7 \qquad \qquad 8 \\ \text{---} \\ 7.5 \\ 7.73 \\ \textcircled{7.7} \end{array}$$



$$\frac{10}{17}$$

$$17 \overline{) 10.00} \quad .58$$

$$8.58 \approx 8.6$$

Simplify

③

$$6x^5 \cdot 3x^5 \cdot x^0$$

a) $18x^{10}$

b) $18x^{10}$

c) $9x^{10}$

d) $9x^{25}$

$$(6)(3)(x^5)(x^5)(x^0)$$
$$\checkmark \quad \quad \quad x^{5+5}$$
$$18 \cdot x^{10} \cdot 1$$
$$18x^{10}$$

Simplify

$$\textcircled{4} \quad \frac{2 \cdot x^3}{-8 \cdot x^4} = \frac{2}{-8} \cdot \frac{x^3}{x^4}$$
$$= -\frac{1}{4} \cdot \frac{1}{x}$$

$$\frac{\cancel{x} \cdot \cancel{x} \cdot \cancel{x}}{\cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot x}$$

a) $-4x^{-1}$ $-4 \cdot x^{-1}$

b) $\frac{2x^3}{8x^4}$ $-4 \cdot \frac{1}{x}$

c) $-16x^1$ $\frac{-4}{x}$

d) $10x^7$

e) $\frac{-2x}{8x}$

f) $-16x^2$

$$\frac{-1}{4x}$$

5

Simplify

$$\frac{xy^7}{x^3y^4}$$

$$= \frac{x}{x^3} \cdot \frac{y^7}{y^4}$$

$$\frac{x}{\cancel{x} \cdot \cancel{x} \cdot x} \cdot \frac{\cancel{y} \cdot \cancel{y} \cdot \cancel{y} \cdot y \cdot y \cdot y}{\cancel{y} \cdot \cancel{y} \cdot \cancel{y} \cdot y}$$

$$\frac{1}{x^2} \cdot \frac{y^3}{1}$$

$$= \frac{y^3}{x^2}$$

Ex1

$$x^4 \cdot x^2 \cdot x$$
$$\swarrow \quad \searrow$$
$$x^6 \cdot x$$
$$\searrow$$
$$x^7$$

Ex2

$$x^7 \cdot x^3$$
$$\searrow$$
$$x^{10}$$

Ex3

$$2x^7 \cdot 3x^3$$
$$(2)(3)(x^7)(x^3)$$
$$\searrow \quad \swarrow$$
$$6 \cdot x^{7+3}$$
$$6x^{10}$$

Apply
The
Rule(s)

$$x^5 \cdot x^{-6} \cdot x^2$$

$$\frac{x^5 \cdot x^2}{x^6}$$

$$\frac{x^7}{x^6}$$

$$x$$

$$2x^2 \cdot 3^{-2} =$$

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

$$\frac{2x^2}{9}$$

$$\frac{x^5}{x^2} = x^3$$

$$\frac{x^{10}}{x^5} = x^5$$

$$\frac{10x^{12}}{5x^6} = 2x^6$$

$$\frac{x^9}{x^{-6}} = \frac{x^9 \cdot x^6}{1}$$

$$= x^{15}$$

$$\frac{x^8 y^6 z^{-4}}{x^5 y^9 z^2} = \frac{x^8 y^6}{x^5 y^9 z^2 z^4}$$

$$= \frac{x^8 y^6}{x^5 y^9 z^6}$$

$$= \frac{x^3}{y^3 z^6}$$

$$(x^3)^2 = x^6$$

$$(2x^6y^3)^2 = 4x^{12}y^6$$

$$2^2 \cdot (x^6)^2 \cdot (y^3)^2$$
$$4 \cdot x^{12} \cdot y^6$$

$$4x^{12}y^6$$

$$\left(\frac{x^2y}{xy^2}\right)^2$$

$$\frac{x^4y^2}{x^2y^4}$$

$$\frac{x^2}{y^2}$$

$$\left(\frac{x^2 y^{-2}}{x^{-4} y^4} \right)^{-4}$$

$$(x^2)^{-4} \cdot (y^{-2})^{-4}$$

$$(x^{-4})^{-4} \cdot (y^4)^{-4}$$

$$\frac{x^{-8} \cdot y^8}{x^{16} \cdot y^{-16}} =$$

$$\frac{y^{16} \cdot y^8}{x^{16} \cdot x^8}$$

$$= \frac{y^{24}}{x^{24}}$$

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

$$2 \cdot \frac{x^3}{x^5} \cdot \frac{y^{-5}}{y^2}$$

$$\frac{3 \cdot x^2 \cdot y}{x \cdot y^{-2}}$$

$$\frac{2}{x^2y^7} \cdot 3xy^3 \leftarrow (3x \cdot y \cdot y^2)$$

$$\frac{6xy^3}{x^2y^7} = \frac{6}{xy^4}$$