

$$\frac{a^7 b^{-4} c^5}{d^{21} e^{-14} f^{-11}} = \frac{a^7 c^5 e^{14} f^{11}}{d^{21} b^4}$$

$$26. \quad 2x^{-2}$$

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

$$27. \quad 5m^{-3}n^4$$

$$\frac{5n^4}{m^3}$$

$$28. \quad 3x^{-2}y^{-5}$$

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

$$29. \quad (x^{-2}y^2)^3$$

$$x^6 y^{-6} = \frac{x^6}{y^6}$$

$$31. \quad (f^{-3}g^5h^8)^{-3}$$

$$f^9 g^{-15} h^{-24} = \frac{f^9}{g^{15} h^{24}}$$

$$36. \quad x^{-4} y^5 \\ = \frac{y^5}{x^4}$$

$$37. \quad r^{-40} t^{64} \\ = \frac{t^{64}}{r^{40}}$$

$$\begin{array}{l} 3\sqrt{8} \\ 3\sqrt{4 \cdot 2} \\ 3\sqrt{4} \sqrt{2} \\ 3 \cdot 2 \sqrt{2} \end{array}$$

$$38. \quad x^{12} y^{-22} = \frac{x^{12}}{y^{22}}$$

$$3. a) \quad \frac{1}{5^4} = \frac{5^{-4}}{1}$$

$$b) \quad \left(-\frac{1}{2}\right)^{-3} = (-2)^3$$

$$d) \quad \frac{1}{4^{-2}} = 4^2$$

$$4^2 = 16$$

$$4^{-2} = \frac{1}{4^2} = \frac{1}{16}$$

$$7. \left(\frac{1}{2}\right)^{-2} = \frac{2^2}{1} = 4$$

$$b) \left(\frac{2}{3}\right)^{-3} = \left(\frac{3}{2}\right)^3 = \frac{3^3}{2^3} = \frac{27}{8}$$

$$\left(\frac{1}{4}\right)^{-3} = \left(\frac{4}{1}\right)^3 = 4^3 = 64$$

$$4 \times 4 \times 4$$

$$4^3 = 64$$
$$\left(-\frac{5}{6}\right)^{-4} = \frac{(-5)^4}{6^4}$$

Try...

4. b-d

5.

6.

8.

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$$4b) 2^4 = 16$$

$$\frac{2^{-4}}{1} = \frac{1}{2^4} = \frac{1}{16}$$

$$4c) \quad 6^1 = 6$$

$$\frac{6^{-1}}{1} = \frac{1}{6^1} = \frac{1}{6}$$

$$4^3 = 64$$

$$2^{10} = 1024$$

$$2^{-10} = \frac{1}{1024}$$

$$\frac{4^{-3}}{1} = \frac{1}{4^3} = \frac{1}{64}$$

$$b a) \frac{2^{-3}}{1} = \frac{1}{2^3} = \frac{1}{8}$$

$$b b) 3^{-5} = \frac{1}{3^5} = \frac{1}{243}$$

$$c) \left(\frac{-7}{1}\right)^{-2} = \left(\frac{1}{-7}\right)^2 = \frac{1}{49}$$

Homework

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