

4.2.

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#20. $\frac{5}{9} \cdot \frac{2}{7} = \frac{10}{63}$

#28. $\left(-\frac{16}{35}\right) \cdot \left(-\frac{25}{48}\right) = \frac{16}{35} \cdot \frac{25}{48} = \frac{1}{7} \cdot \frac{5}{3} = \frac{5}{21}$

#38. $6\left(-\frac{2}{3}\right) = -2 \cdot \frac{2}{1} = -4$

#40. $-2\left(-\frac{7}{8}\right) = 1 \cdot \frac{7}{4} = \frac{7}{4}$

#42. $\frac{2t}{3} \cdot \frac{7}{8t} = \frac{1}{3} \cdot \frac{7}{4} = \frac{7}{12}$

#50. $-\frac{5}{7} \cdot \frac{7}{5}w = -\frac{1}{1} \cdot \frac{1}{1}w = -w$

#58. $-\frac{3ef^3}{5b} \cdot \frac{10b}{e^2f} = -\frac{3f^2}{1} \cdot \frac{2}{e} = -\frac{6f^2}{e}$

#60. $-\frac{2}{21j^2} \left(-\frac{15j}{8}\right) = \frac{2}{21j^2} \frac{15j}{8} = \frac{1}{7j} \frac{5}{4} = \frac{5}{28j}$

Multiply and express the product in two ways:

#62. $\frac{2}{3} \cdot y = \underbrace{\frac{2y}{3}} = \boxed{\frac{2}{3}y}$

#64. $-\frac{7}{6} \cdot m = \underbrace{-\frac{7m}{6}} = \boxed{-\frac{7}{6}m}$

Find each power.

#66. $\left(\frac{3}{5}\right)^2 = \frac{3}{5} \cdot \frac{3}{5} = \frac{9}{25} = \frac{3^2}{5^2}$

That is, $\left(\frac{3}{5}\right)^2 = \frac{3^2}{5^2}$

#68. $\left(-\frac{5}{6}\right)^2 = \left(-\frac{5}{6}\right)\left(-\frac{5}{6}\right) = \frac{5}{6} \cdot \frac{5}{6} = \frac{25}{36}$

#70. $\left(\frac{3t}{2}\right)^2 = \left(\frac{3t}{2}\right)\left(\frac{3t}{2}\right) = \frac{9t^2}{4}$

#72. $\left(-\frac{2b}{5}\right)^2 = \left(-\frac{2b}{5}\right)\left(-\frac{2b}{5}\right) = \frac{2b}{5} \cdot \frac{2b}{5} = \frac{4b^2}{25}$