Skills 3-1 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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|  | Example | Problem |
| 1 | $$4x^{-7}∙5x^{3}$$$$20x^{-4}=\frac{20}{x^{4}}$$ | $$2a^{-8}∙3a^{5}$$ |
| 2 | $$\left(a^{3}b^{-5}\right)^{-2}$$$$a^{-6}b^{10}=\frac{b^{10}}{a^{6}}$$ | $$\left(x^{-6}y^{2}\right)^{-3}$$ |
| 3 | $$\frac{4x^{2}y^{7}z^{3}}{6x^{5}y^{3}z}$$$$\frac{2y^{4}z^{2}}{3x^{3}}$$ | $$\frac{6a^{8}b^{5}c^{7}}{8a^{2}bc^{10}}$$ |
| 4 | $$\frac{20x^{-4}}{4x^{12}}$$$$5x^{-16}=\frac{5}{x^{16}}$$ | $$\frac{35k^{4}}{5k^{8}}$$ |
| 5 | $$\frac{5c^{-4}d^{10}}{9c^{6}d^{-2}}$$$$\frac{5d^{12}}{9c^{10}}$$ | $$\frac{4p^{3}q^{2}}{7p^{-5}q^{8}}$$ |

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|  | Example | Problem |
| 6 | $$4.5×10^{7}+3×10^{6}$$4.5 x 107 + 0.3 x 1074.8 x 107 | $$3.7×10^{4}+2×10^{3}$$ |
| 7 | $$\left(3 ×10^{4}\right)\left(2.6×10^{5}\right)$$78 x 1097.8 x 1010 | $$\left(2.3 ×10^{3}\right)\left(6×10^{6}\right)$$ |
| 8 | Find the coordinates of triangle ABC after a translation (-3, 4).A (1, 3) 🡪 A’ (-2, 7)B (4, 7) 🡪 B’ (1, 11)C (2, 4) 🡪 C’ (-2, 15) | Find the coordinates of triangle ABC after a translation (-2, 5).A (0, 5) B (2, 8) C (3, 5)  |
| 9 | Find the coordinates of triangle DEF after a reflection over the x-axis.D (-2, 7) 🡪 D’ (-2, -7)E (0, -4) 🡪 E’ (0, 4)F (1, 8) 🡪 F’ (1, -8) | Find the coordinates of triangle DEF after a reflection over the x-axis.D (-1, -3) E (-2, -7) F (-4, -2)  |
| 10 | Find the coordinates of triangle GHI after a rotation 90o clockwise.G (-2, -4) 🡪 G’ (-4, 2)H (-3, 0) 🡪 H’ (0, 3)I (-5, -2) 🡪 I’ (-2, 5) | Find the coordinates of triangle GHI after a rotation 90o clockwise.G (-3, -2) H (0, -5) I (1, -1)  |