

Name Key Your score \_\_\_\_\_ Percent \_\_\_\_\_%

STUDY GUIDE FOR Chapter 3 Quiz Possible points \_\_\_\_\_ Grade \_\_\_\_\_

**Show Work on ALL Problems**

Simplify completely.

<p>1) <math>\left[\frac{1}{4}\right]^{-2} + \left[\frac{2}{5}\right]^{-1}</math></p> <p><math>\left[\frac{4}{1}\right]^2 + \left[\frac{5}{2}\right]^1</math></p> <p><math>16 + \frac{5}{2} = 16 + 2\frac{1}{2} =</math></p>	<p>2) <math>(.24)^{-2}</math></p> <p><math>\left[\frac{24}{100}\right]^{-2} = \left[\frac{100}{24}\right]^2 = \frac{625}{36}</math></p>	<p>3) <math>\frac{24c^5}{6c^{-3}} - -3</math></p> <p><math>4c^5 - -3</math></p> <p><math>4c^8</math></p>
---	---	--

Find the value of x that makes the equation true.

4)  $243 \cdot 3^{-4} = 3^x$

$3^5 \cdot 3^{-4} = 3^x \rightarrow 5 + -4 = x$

$1 = x$

Simplify completely.

<p>5) <math>-2x(3y) \div (-2y)</math></p> <p><math>\frac{-6xy}{-2y}</math></p> <p><math>+3x</math></p>	<p>6) <math>.36(-8.1x)(-1.6y)</math></p> <p><math>+4.6656xy</math></p>	<p>7) <math>\frac{y^{-3}y^4y^{-2}}{y^{-2}y^{-4}}</math></p> <p><math>(-3+4-2)</math></p> <p><math>\frac{y^{(-2+4)}}{y^{(-2+4)}} = \frac{y^{-1}}{y^{-6}} = y^5</math></p>
--	--	--

Simplify completely.

<p>8) <math>-3x^2 \div (18xy^3 - 6xy^3)</math></p> <p><math>\frac{-3x^2}{12x^1y^3}</math></p> <p><math>-\frac{1x}{4y^3}</math></p>	<p>9) <math>\frac{-3x(3y) - 2y(3x)}{4(xy)}</math></p> <p><math>\frac{-9xy - 6xy}{4xy}</math></p> <p><math>-\frac{15xy}{4xy} =</math></p> <p><math>-\frac{15}{4}</math></p>	<p>10) <math>(2a^2 - 5)^{-2} \cdot (2a^2 - 5)^7</math></p> <p><math>\frac{1}{(2a^2 - 5)^2} \cdot \frac{(2a^2 - 5)^7}{1} =</math></p> <p><math>(2a^2 - 5)^5</math></p>
--	--	---

11. CHALLENGE PROBLEM

$4xy$

$= -\frac{15}{4}$