

Name \_\_\_\_\_

### Mixed Review

1)  $2x + \frac{3}{4}(4x + 16) = 7$

2)  $\frac{9x+6-4x}{2} = 8$

3)  $\frac{5}{6}c - \frac{2}{3}c = \frac{1}{3}$

4)  $8 - 3(p - 4) = 2p$

5) **Challenge!**

$$\frac{6x-7}{4} + \frac{3x-5}{7} = \frac{5x+78}{28}$$

6) Simplify  $\frac{x^7y^9z^3}{x^4y^7z^8}$

7)  $8^{-2} \cdot 4^3$

8)  $\frac{5^{-1}}{5^2}$

9)  $\left(\frac{p^{-3}q^{-2}}{q^{-3}r^5}\right)^4$

Turn to the back!

10) **Challenge!**  $\frac{(2u^{-1}v^4)^2(u^3v^{-2})^4}{(u^2v^{-5})^5}$

“For the Thinkers” Section

11)  $\frac{1}{1+\frac{1}{2}} = \frac{2}{?}$       a) 1      b) 2      c) 3      d) 4

12) How many of the angles in a triangle must be acute? a) 0      b) 1      c) 2      d) 3

13) If I **start with** 2, and begin to count by 3's my 50<sup>th</sup> number will be ...

a) 149      b) 150      c) 151      d) 152

14) Yogi the bear hibernates  $\frac{1}{3}$  of  $\frac{3}{5}$  of every year. That's \_\_\_\_\_% of every year.

a) 80      b) 50      c) 40      d) 20

15) If  $\angle O$  is obtuse and  $\angle A$  is acute,  $m\angle O - m\angle A$  can never equal \_\_\_\_\_

a)  $90^\circ$       b)  $89^\circ$       c)  $1^\circ$       d)  $0^\circ$

After you have finished all of this worksheet to the best of your abilities, call a friend and compare answers!