

## Math 8 Unit 2 Test Review:

1. Rational or Irrational?

a.  $\sqrt{25}$

b.  $\sqrt{30}$

2. Simplify:  $(5^6)^8$

3. Solve for x:

$$\frac{1}{2}(2x + 4) = \frac{1}{3}(30x - 6)$$

4. Solve for x:

$$3(2x+6)=2(6x-3)$$

5. Put in order from least to greatest:

$$4.4, \frac{15}{2}, \sqrt{18}, 3\frac{1}{2}$$

6. What 2 numbers does the  $\sqrt{61}$  fall between?

7. Solve for x:

$$-2(x+1) - 3 = -2x - 8$$

8. Simplify:

$$\left(\frac{x^4 x^0 y^{-3}}{y^6 x^{-8}}\right)^2$$

9. Simplify:  $\frac{6x^8 y^2}{2x^4 y^{10}}$

10. Write in scientific notation: 4,540,000,000

11. Write in scientific notation: 0.00000062

12. Write in standard form:  $3.4 \times 10^{-7}$

13. Write in standard form:  $4.7 \times 10^8$

14. Solve for x:  $2x - 6 = 12$

15. Which is larger,  $3.4 \times 10^{-5}$  or  $2 \times 10^{-4}$ ?

16. Solve:  $\sqrt{16}$

17. Solve:  $\sqrt[3]{8}$

18. Simplify:  $x^3 x^8 y^{10}$

19. What types of solutions can equations with 1 variable have?

20. Solve:  $\sqrt{625}$

21.  $5^3$