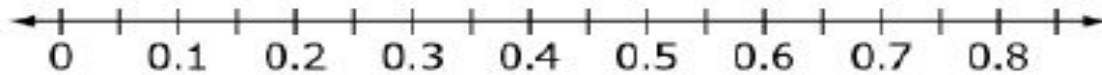


**Mid-Chapter Review**

1. What is the fraction  $\frac{10}{33}$  written as a decimal? \_\_\_\_\_
2. What is the decimal -5.68 written as a mixed number in simplest form? \_\_\_\_\_
3. Place the following rational numbers on the number line:  $\sqrt{0.25}$ ,  $\frac{83}{100}$ ,  $\frac{3}{7}$



4. For each number, indicate if it is rational or irrational by checking the box.

	Rational	Irrational
$\frac{4}{7}$	<input type="checkbox"/>	<input type="checkbox"/>
$\sqrt[3]{30}$	<input type="checkbox"/>	<input type="checkbox"/>
0.30303030...	<input type="checkbox"/>	<input type="checkbox"/>
$\pi$	<input type="checkbox"/>	<input type="checkbox"/>
-27	<input type="checkbox"/>	<input type="checkbox"/>

5. Evaluate  $(-3)^4 =$  \_\_\_\_\_
6. Write the expression using an exponent.  $\mathbf{b \cdot a \cdot c \cdot c \cdot b \cdot a \cdot b \cdot c}$  \_\_\_\_\_
7. Find the value of y:
8. Evaluate the given expression

$$y^2 = 225$$

$$a^4 - b^0 + a^2 \text{ if } a=4 \text{ and } b=6$$

**Simplify the given expression**

9.  $\frac{x^{12}}{x^7} =$

10.  $y^5 \cdot y^{-2} =$

11.  $\frac{x^{10}y^9}{x^6y^7} =$

12.  $\frac{6^3}{6} =$

13.  $8^7 \cdot 8^3 =$

14.  $(m^6n^3)(m^2n^7) =$

15.  $(3^2)^6 =$

16.  $(x^5)^2 =$

17.  $[(x^3)^3]^5 =$

18.  $(x^5y^3)^4 =$

19. Find the missing exponent.  $x \cdot x^5 = x^{20}$

20. Find the missing exponent.  $\frac{x}{x^3} = x^5$

21. How would you write  $8^{15}$  as a product of powers?

So that means the base has to be \_\_\_\_\_ and the exponents...