

Practice Worksheet

Content Standard: Language of Algebra

Student Learning Expectations: Illustrate numerically and recognize the meaning of powers and roots, basic algebraic properties, absolute value and concept of inequality.

1. Which of the following illustrates the associative property?

a.  $(a - b)c = a - (bc)$

b.  $\frac{a+b}{d} = a + \frac{b}{d}$

c.  $a(bc) = (ab)c$

d.  $(a + b)c = ac + bc$

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2. Simplify  $a^3 * a^5$

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3. What is the approximate value of  $5\sqrt{32}$ ?

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4. Which of the following illustrates the fifth power of 2?

a.  $2 + 2 + 2 + 2 + 2$

b.  $x*x*x*x*x = 2$

c.  $2*2*2*2*2$

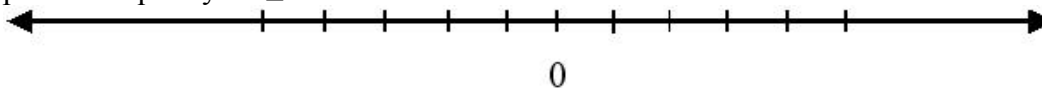
d.  $5x = 2$

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5. Which property is illustrated by the following?  $3r + 2c + 4r + 3c = 3r + 4r + 2c + 3c$

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6. Graph the inequality  $-3 \leq x < 5$ .



7. Tom is paid 2 cents on his first day of work. His pay doubles each succeeding day. How much will Tom earn on his fifth day of work?

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8. The age restrictions for the Cabot Babe Ruth Baseball Association can be expressed mathematically:  $13 \leq x < 19$  where  $x$  is the age, in years, of its players.

a. Draw a scaled number line and graph the interval given above.



b. In your own words (non-mathematical terms) describe what is meant by  $13 \leq x < 19$  with respect to the age of players in the Cabot Babe Ruth Baseball Association. Be clear and complete.