

Name \_\_\_\_\_

**1-1B Lesson Master****Questions on SPUR Objectives**

See pages 60–63 for objectives.

**VOCABULARY**

In 1–4, rewrite each expression using the property given.

1.  $15 - 3$ ; Algebraic Definition of Subtraction      2.  $\frac{1}{2} \div 2$ ; Algebraic Definition of Division

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3.  $(5 \cdot 3) \cdot \frac{1}{3}$ ; Associative Property of Multiplication      4.  $(7 + 2) + 8$ ; Associative Property of Addition

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**SKILLS** Objective A

In 5 and 6, state the first operation performed, and evaluate each expression.

5.  $\sqrt{(7 + 2)} \div 3$

6.  $\frac{6 + 12}{3 + 6} + 5^{(4 - 2)}$

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In 7 and 8, evaluate the algebraic expression for the given value of the variable.

7.  $3x^3$  for  $x = -2$

8.  $\left(\frac{c + 1}{2}\right)^d$  for  $c = 2$  and  $d = 3$

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**PROPERTIES** Objectives F, G

In 9 and 10, rewrite the expression using addition instead of subtraction.

9.  $12 - -20$

10.  $8 \cdot (1 - 9)$

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In 11 and 12, rewrite the expression using multiplication instead of division.

11.  $8 \div 21$

12.  $2^3 \div 4$

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13. If  $a - 32 = d + 9$  and  $d + 9 = p^2$ , what conclusion can be made based on the Transitive Property of Equality?

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**1-1B**

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**SKILLS** Objective A

In 14–21, use the order of operations to evaluate the expression for the given value of  $x$ .

14.  $x - 6$  when  $x = 2$

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15.  $(x - 10) \cdot -4$  when  $x = 6$

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16.  $x - -8$  when  $x = 4$

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17.  $(x - 5)^2$  when  $x = 12$

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18.  $3 \div x$  when  $x = 18$

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19.  $(x + 10) \div 4$  when  $x = 2$

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20.  $(x + 3) \div 6$  when  $x = 15$

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21.  $5^2 \div x$  when  $x = 10$

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In 22 and 23, use a calculator.

22. Using grouping symbols, write how you would input  $\frac{3p - q}{2p}$  into a calculator.

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23. Evaluate  $\frac{3p - q}{2p}$  when  $p = 8$  and  $q = 5$ .

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**PROPERTIES** Objectives F, G

In 24 and 25, which expression is *not* equal to the others?

24. A  $-15 + 5$

B  $5 - 15$

C  $5 + -15$

D  $15 + -5$

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25. A  $-\frac{1}{3} \div 7$

B  $-\frac{3}{7}$

C  $3 \div -7$

D  $-3 \cdot \frac{1}{7}$

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26. If Lincoln has the same number of baseball hats as Rick and Rick has the same number of baseball hats as Maggie, what conclusion can be made based on the Transitive Property of Equality?

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