Name

1-3B Lesson Master

Questions on SPUR Objectives
See Student Pages pages 66–69 for objectives.

VOCABULARY

In 1–3, tell how each is read.

1. $f(n)$ _____

2. $A : k \rightarrow \frac{k^3}{8}$ _____

3. $T(y) = 5 + \frac{15y}{113}$ _____

4. What is the argument of the function in Question 2? _____

5. What is the value of the function in Question 2 when $k = 6$? _____

SKILLS Objective B

In 6 and 7, evaluate each function when $d = -5$.

6. $g(d) = 12d + 31$ _____

7. $a(d) = \frac{\sqrt{-6d}}{40}$ _____

In 8–10, suppose $B(x) = 2x^2 - x$. Evaluate the function for the given value of x.

8. $B(4)$ _____

9. $B(\frac{1}{2})$ _____

10. $B(-2.5)$ _____

11. Let $g(x) = \sqrt{100 - x^2}$.

   a. Rewrite the function using mapping notation. _____

   b. $g : 7 \rightarrow$ _____ c. $g : 0 \rightarrow$ _____ d. $g : -3m \rightarrow$ _____

12. Let $b : w \rightarrow \frac{w}{8w + 5}$.

   a. Rewrite the function using $f(x)$ notation. _____

   b. Find $b(2a) - b(10)$. _____

   c. Why is $b(w)$ undefined when $w = -\frac{5}{8}$? _____

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USES Objective J

13. A plumber charges \$80 per service call plus \$65 per hour or fraction thereof.

a. Describe this situation as a function using Euler's notation. _____

b. Describe this situation as a function using mapping notation. _____

c. How much does the plumber earn for a $5\frac{1}{2}$-hour service call? _____

14. Let n = the number of sides of a regular polygon and $M(n)$ = the measure of an interior angle of the polygon in degrees. Then $M(n) = \frac{180(n-2)}{n}$.

a. Find the measure of an interior angle of a regular octagon. _____

b. The measure of an interior angle of a regular polygon is 150°.

How many sides does the polygon have? _____

15. Jazmin deposited \$3000 in a bank account that pays 4% interest each year. The function $f(n) = 3000(1.04)^n$ gives the amount of money she will have in the account after n years if she leaves the money alone in the account.

a. Complete the table. Round to the nearest dollar.

n	$f(n)$	$f(n) - f(n-1)$
0	\$3000	
1	\$3120	\$120
2	\$3245	\$125
3		
4		
5		
6		
7		

b. How much money will be in Jazmin's account after 4 years?

_____

c. Explain in words what the figures in the column on the right show.

_____

_____

d. Why is one cell of the table gray?

_____

_____