Name

1-4B Lesson Master

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

VOCABULARY

In 1–4, identify each number as a whole number, an integer, a rational number, an irrational number, or a real number. A number may belong to more than one set.

1. -16.3 _____ 2. $\sqrt{8}$ _____

3. 107 _____ 4. $\frac{41}{28}$ _____

5. Does a number exist that belongs to all of the sets listed in Questions 1–4? Explain.

_____

PROPERTIES Objective H

In 6–8, for each function represented, find a. the domain, b. the range, and c. the indicated value.

6.

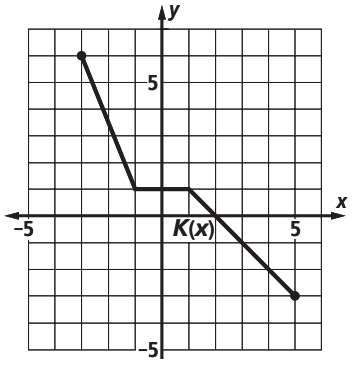
j	8	12	−7	0	6
$g(j)$	3	−5	22	−5	0

a. _____

b. _____

c. $g(0) =$ _____

7.



a. _____

b. _____

c. $K(3) =$ _____

8. $f(x) = \frac{1}{9x}$

a. _____

b. _____

c. $f(-\frac{1}{3}) =$ _____

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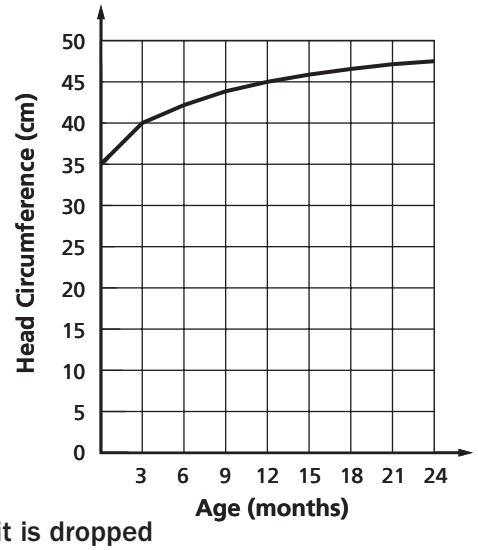
USES Objective J

10. The graph at the right shows the circumference $C(a)$ of a typical girl's head in centimeters at age a, in months.



a. Estimate $C(6)$. _____

b. Estimate $C(24) - C(12)$. Tell what this number means.

_____

_____

_____

In 11 and 12, the height h (in feet) of a pebble t seconds after it is dropped from a tall building is given by $h(t) = 169 - 16t^2$. Find the indicated value and explain what it means.

11. $h(2)$ _____

12. $h(3.25)$ _____

REPRESENTATIONS Objective L

In 13 and 14, graph the function on your grapher's standard window. Use the graph to a. find the domain and range of the function, b. estimate the value of the function when $x = 3$, and c. estimate all values of x when $f(x) = -2$.

13. $f(x) = x^2 - 2x - 4$

a. _____

b. _____

c. _____

14. $g(x) = -3 + \sqrt{2x + 1}$

a. _____

b. _____

c. _____