

Chapter 2 Honors Practice Test

Name _____ Hour _____ Score _____

Sketch a graph to represent the situation. Label each section.

- The temperature changed as Kelly preheated the oven, cooked a pie, and then turned the oven off.

For each table, determine whether the relationship is a function. Then represent each function using words, an equation, and a graph.

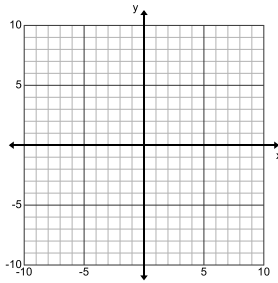
- Function ? _____

x	y
4	0
3	1
2	2
1	3

Words _____

Equation _____

Graph



Each set of ordered pairs represents a function. Write a rule that represents the function.

- $(0, 0), (-1, 3), (-2, 6), (-3, 9), (-4, 12)$ 3. _____

- $(0, -4), (1, -2), (2, 0), (3, 2), (4, 4)$ 4. _____

- $(0, -2), (1, 1), (2, 4), (3, 7), (4, 10)$ 5. _____

- $(1, -2), (2, 4), (3, -8), (4, 16), (5, -32)$ 6. _____

Write a function rule that represents each sentence.

- 4 more than two-fifths of a is b. 7. _____

- 10 less than the product of a number z and -2 is z. 8. _____

Chapter 2 Honors Practice Test cont.

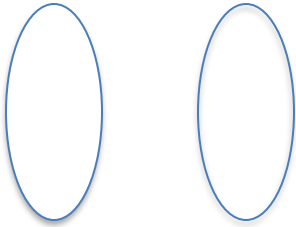
Identify the domain and the range of each relation. Using a mapping diagram to determine whether the relation is a function.

9. $\{ (-6,3), (2,0), (0,1), (3,-2) \}$

Domain _____

Range _____

Mapping



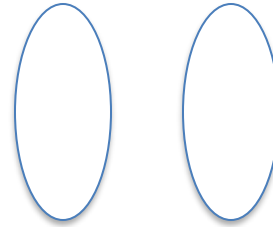
Function? _____

10. $\{ (1,-4), (0,0), (1,4), (3,8) \}$

Domain _____

Range _____

Mapping



Function? _____

Find the range of each function for the given domain.

11. $f(x) = -2x + 1; \{-1,0,1,3,5\}$

12. $f(x) = x^3 - 1; \{-2,-1,0,1,2\}$

11. _____

12. _____

Tell whether each sequence is arithmetic. Justify your answer. If the sequence is arithmetic, write a recursive and an explicit formula to represent it.

13. 13, 10, 7, 4, 1, ...

Arithmetic? _____

Recursive _____

Explicit _____

14. 7, 12, 17, 22, 27, ...

Arithmetic? _____

Recursive _____

Explicit _____

Find each function value.

15. What is $f(-5)$ for the function $f(x) = -4x - 3$?

15. _____

16. If $f(x) = 3x - 1$ and $g(x) = x^2 - 2$, find $f(-2) + g(3)$.

16. _____

17. If $f(x) = x - 10$, find $f(a+b)$.

17. _____

18. If $f(n) = -2n + 31$ and $f(n) = 21$, what is the value of n ?

18. _____