

Relations and Functions

Name _____



Solve each problem and find its matching answer. Decode the message using the letter of the answer associated with each question.

$\overline{11}$ $\overline{17}$ $\overline{15}$ $\overline{6}$ $\overline{7}$ $\overline{8}$ $\overline{13}$ $\overline{15}$ $\overline{10}$ $\overline{9}$ $\overline{16}$ $\overline{11}$ $\overline{15}$ $\overline{1}$ $\overline{11}$ $\overline{8}$ $\overline{15}$ $\overline{2}$ $\overline{2}$ $\overline{20}$ $\overline{21}$ $\overline{15}$ $\overline{2}$
 $\overline{2}$ $\overline{15}$ $\overline{6}$ $\overline{11}$ $\overline{20}$ $\overline{6}$ $\overline{19}$ $\overline{10}$ $\overline{15}$ $\overline{14}$ $\overline{15}$ $\overline{12}$ $\overline{5}$ $\overline{15}$ $\overline{19}$ $\overline{15}$ $\overline{20}$ $\overline{14}$ $\overline{17}$ $\overline{19}$ $\overline{20}$ $\overline{4}$
 $\overline{15}$ $\overline{1}$ $\overline{14}$ $\overline{15}$ $\overline{15}$ $\overline{19}$ $\overline{2}$ $\overline{11}$ $\overline{17}$ $\overline{15}$ $\overline{3}$ $\overline{9}$ $\overline{3}$ $\overline{7}$ $\overline{18}$ $\overline{20}$ $\overline{11}$ $\overline{12}$ $\overline{9}$ $\overline{6}$ $\overline{9}$ $\overline{16}$
 $\overline{11}$ $\overline{17}$ $\overline{15}$ $\overline{3}$ $\overline{18}$ $\overline{20}$ $\overline{6}$ $\overline{15}$ $\overline{11}$!

Evaluate each function at the specified location and find its matching answer in the box at the right:

- $f(x) = 3x^2 + 2x + 1; f(2)$
- $f(x) = (-7x + 2) - (4x - 3); f(-1)$
- $f(x) = |-8x| + |3x + 6|; f(-3)$
- $f(x) = -(2x + 5)^2; f(1)$
- $f(x) = 2(6x); f(4)$
- $f(x) = 3x - 16; f(-2)$
- $f(x) = (x + 8)(x - 4); f(3)$
- $f(x) = \frac{5x + 1}{x + 2}; f(-2)$
- $f(x) = \frac{x + 3}{2x} + 1; f(-3)$
- $f(x) = \frac{x + 4}{4x} + 2; f(-4)$
- $f(x) = -x^2 - x - 1; f(-2)$

Answer Box for Questions 1 – 11:

Hyphen (-) -9/4

Z 3

Y -49

X 17

W -16

V 48

U -11

T -3

S 16

R 2

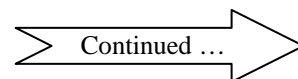
Q 49

P 27

O 1

N -22

M unknown



Match each relation with its graph in the Graph Box below.

12. $y = x$

13. $y = \frac{1}{2}x - 1$

14. $y = 3x + 1$

15. $y = |x|$

16. $y = x^2 + 1$

17. $y = -x$

18. $y = 3$

19. $y = -\frac{1}{2}x - 1$

20. $y = -3x + 1$

21. Which graph is NOT the graph of a function?

Graph Box:

