

Name: _____ Date: _____ Period: _____

Determining Proportionality in Equations, Tables, & Graphs

Part 1: Determine whether each equation shows a proportional relationship.

Proportional? Identify the constant of proportionality ($k = \underline{\quad}$)

Not proportional? Write “not proportional” (no abbreviating ☺)

1. $y = 45x$

2. $y = 3x - 7$

3. $y = 9x$

4. $y = \frac{3}{4}x$

5. $y = 7x^3$

6. $y = 4.2x$

7. $y = -x$

8. $y = 8x + 6$

Part 2: Determine whether each table shows a proportional relationship **by finding the ratio of y to x for all ordered pairs.**

Proportional? Identify the constant of proportionality AND the equation

Not proportional? Write “not proportional” (no abbreviating ☺)

9.

x	1	2	3	4
y	3	6	9	12

10.

x	2	3	4	5
y	10	15	20	25

11.

x	1	2	5	10
y	10	5	2	1

12.

x	10	20	30	40
y	100	200	300	400

13.

x	0	1	2	3
y	3	6	9	12

14.

x	3	5	10	12
y	12	20	40	24

15.

x	Y
3	2
9	6
12	8
18	12

16.

x	y
2	3
4	6
6	9
8	12

17.

x	y
5	30
7	42
10	60
12	72

18.

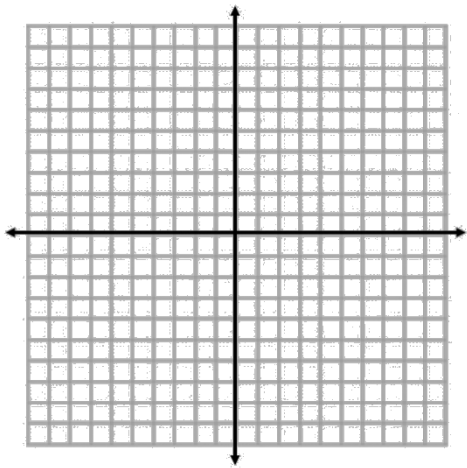
x	y
0	0
2	4
3	9
4	16

Part 3: Graph each set of points and connect them. Determine whether or not the points have a proportional relationship

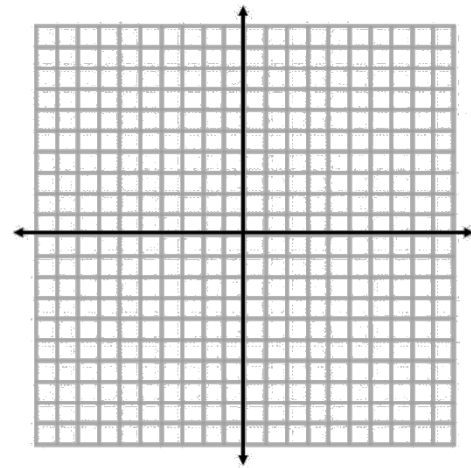
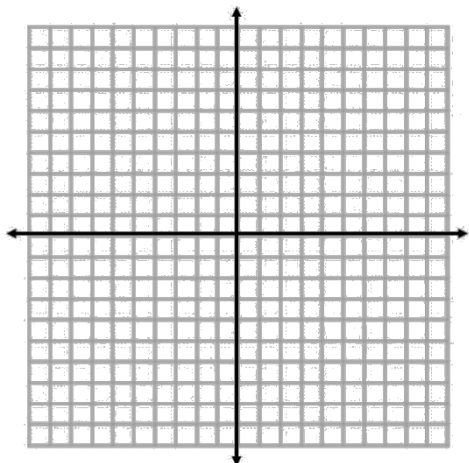
Proportional? Identify the constant of proportionality AND the equation

Not proportional? Explain why the graph is not proportional in a complete sentence.

19. (-4, -8) (1, 2) (2, 4) (3, 6)



20. (-1, -1) (1, 3) (2, 5) (3, 7)

21. (-1, 1) (-2, 4) (-3, 9) (0, 0)
(1, 1) (2, 4) (3, 9)22. (-10, -5) (-6, -3) (2, 1)
(6, 3) (10, 5)