

Relationships and Proportional Reasoning

Concept Builders: Fundamentals - Relationships and Graphs, [Proportional Reasoning](#)

1. Inspect Data Sets A – D. Identify the relationship that each set of x-y data represent – linear, inverse, constant, or quadratic. Write the relationship name in the blank below the Data Set.

Set A		
Row	x	y
A	2	2
B	4	8
C	6	18
D	8	32
E	12	72

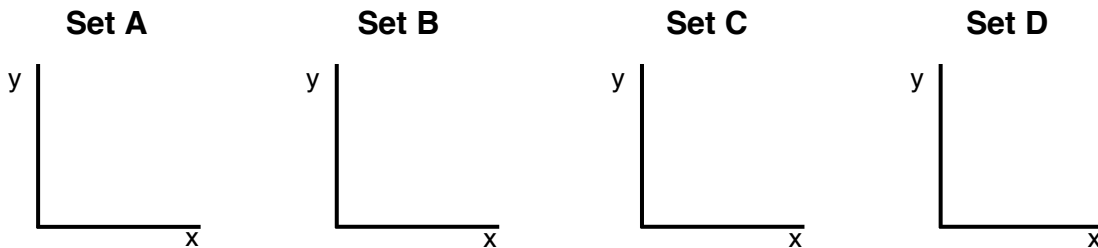
Set B		
Row	x	y
A	1	4
B	3	12
C	4	16
D	9	36
E	12	48

Set C		
Row	x	y
A	2	12
B	3	8
C	4	6
D	6	4
E	8	3

Set D		
Row	x	y
A	2	4
B	4	8
C	6	12
D	8	16
E	12	24

2. Match the statements to the Data Sets. Write a letter(s) in each blank.
- When x is doubled, y is doubled. → _____
 - When x is doubled, y is halved. → _____
 - When x is doubled, y is quadrupled. → _____

3. Sketch the look of the x-y plot for each Data Set:



4. For the indicated Data Sets, predict the value of y for each given value of x.
- Data Set A: When x = 24, the value of y will be _____.
 - Data Set B: When x = 24, the value of y will be _____.
 - Data Set B: When x = 2, the value of y will be _____.
 - Data Set B: When x = 6, the value of y will be _____.
 - Data Set C: When x = 16, the value of y will be _____.
 - Data Set C: When x = 12, the value of y will be _____.
 - Data Set D: When x = 24, the value of y will be _____.
 - Data Set D: When x = 16, the value of y will be _____.