

# Ordering Numbers

## Task Card

By Larisa Velasco and Marcy Wood

**Directions:**

1. Hand out all of the cards. Each person must have at least one.
2. Write your name ON THE FRONT of your card(s).
3. You may ONLY touch or move your card(s). No one else may touch or move your cards.

**TASK:** As a group, arrange the cards so the quantities they represent are ordered from least to greatest. Your group **must use a different strategy** each time you place or rearrange any cards. Find as many unique strategies as you can.

**AFTER the cards are arranged:**

As a group, choose any two cards. Using the strategies you developed as you ordered the number cards, make a list of all possible numbers between those two cards. Be sure everyone in your group can explain all of the variations.

**Individual Final Product:**

Each person must describe *in writing* each different strategy for ordering the quantities on the number cards.

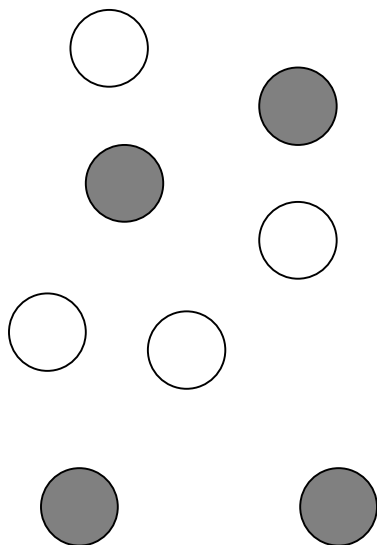
**Norms:**

*Explore until time is up.*

*Everyone takes turns.*

*Everyone records.*

$$\frac{4}{7}$$

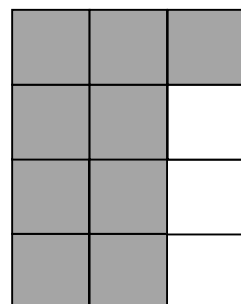


$$.666$$

$$5 \frac{1}{8}$$

$$.76$$

$$\frac{2}{3}$$



$$5 \frac{1}{9}$$

# Matching Linear Representations

## Task Card

By Sandra Crespo

### Directions:

1. Hand out all of the cards. Each person must have at least one.
2. Write your name ON THE FRONT of your card(s).
3. You may ONLY touch or move your card(s). No one else may touch or move your cards.

**TASK:** In your group you have four types of representations—tables, graphs, equations, and contextual situations—for six different linear relationships. The goal is to match the four types of representations for the same linear relationship. As you do this, make sure to pay attention to the strategies and clues that help you identify and ultimately match all four representations.

### AFTER the cards are matched:

As a group:

- Describe the strategies that helped your group to match the four cards that went together and represented the same linear relationship. Be sure that everyone in your group can explain these strategies.
- Discuss which representation was easiest/hardest to work with and consider why that was. Also consider which of the six linear relationships was the easiest/hardest to match their representations.

### Individual Final Product:

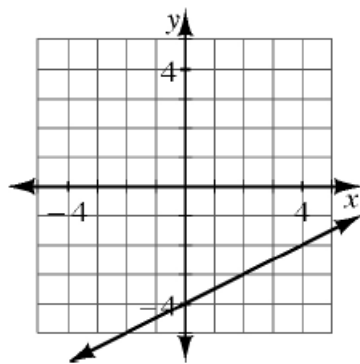
Each person must describe *in writing* a strategy the group used that allowed them to successfully match at least two different representations. Explain whether that strategy will work sometimes or always.

### Norms:

*Explore until time is up.*  
*Everyone takes turns.*  
*Everyone records.*

$x$	$y$
2	-3
3	-2.5
4	-2
5	-1.5

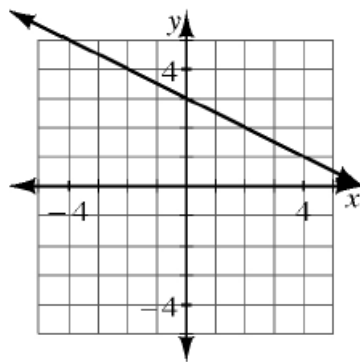
$$y = \frac{1}{2}x - 4$$



The temperature at midnight was  $4^{\circ}\text{F}$  below zero. It steadily grew  $1^{\circ}\text{F}$  warmer every 2 hours.

$x$	$y$
-3	4.5
-2	4
-1	3.5
0	3

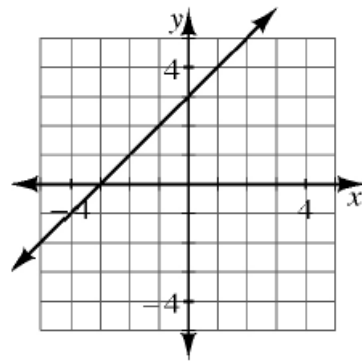
$$y = -\frac{1}{2}x + 3$$



At noon, Carol had \$3. She then bought a 50¢ soda every hour.

$x$	$y$
-3	0
-2	1
-1	2
0	3

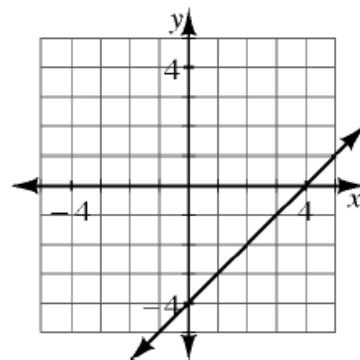
$$y = x + 3$$



When a tree was planted, it was 3 feet tall. After 5 months of growing at a constant rate, it was 8 feet tall.

$x$	$y$
5	1
6	2
7	3
8	4

$$y = x - 4$$



Joey is 4 miles south of his home. While walking north at a constant speed, he passes his house after 4 hours.

$x$	$y$
1	3
2	6
3	9
4	12

$$y = 3x$$

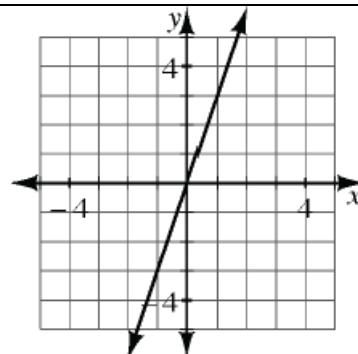


Figure 1



Figure 2

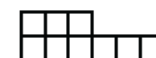
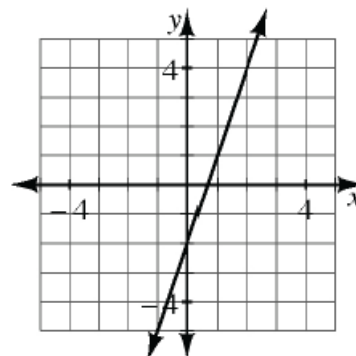


Figure 3

$x$	$y$
1	1
2	4
3	7
4	10

$$y = 3x - 2$$



An elevator at Frump Tower climbs 3 floors per minute. After 1 minute, it is on the 1<sup>st</sup> floor.