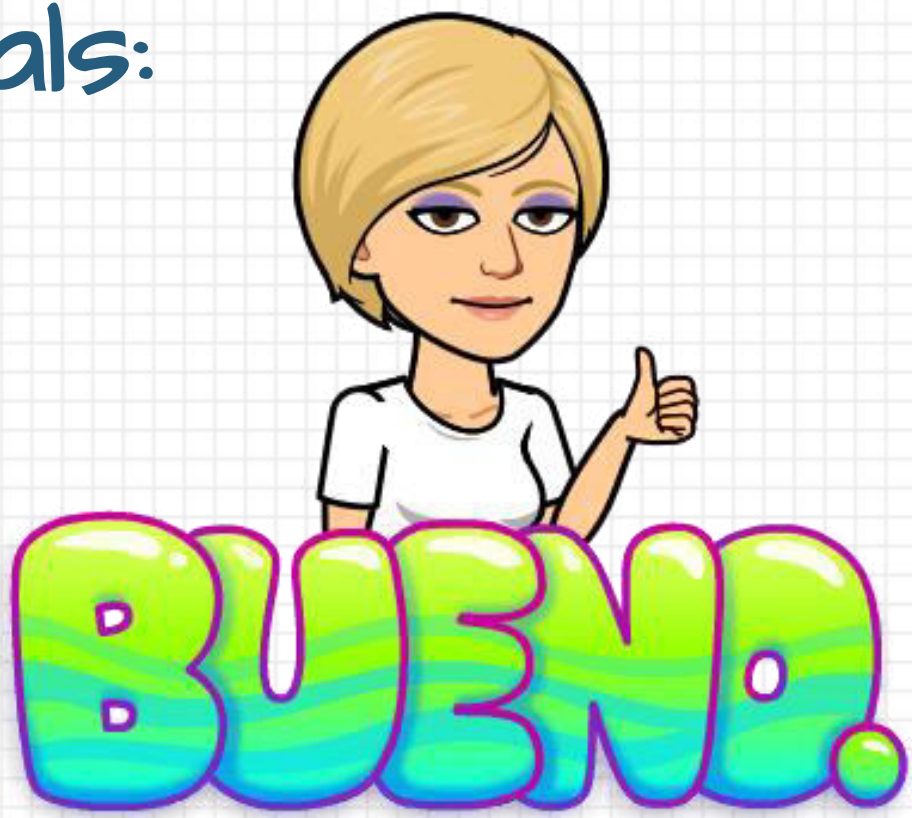
Today's Materials:

- device
- pencil
- notebook
- glue
- ruler
- highlighter



Introducing Graphs of Proportional Relationships

Lesson 10

CCSS Standards: Building on	• 5.G.A • 6.NS.C.8
CCSS Standards: Addressing	• 7.RP.A.2 • 7.RP.A.2.a
CCSS Standards: Building towards	• 7.RP.A.2.a

Let's see how graphs of proportional relationships differ from graphs of other relationships!

Notice These Points

Warm Up

Plot the points.

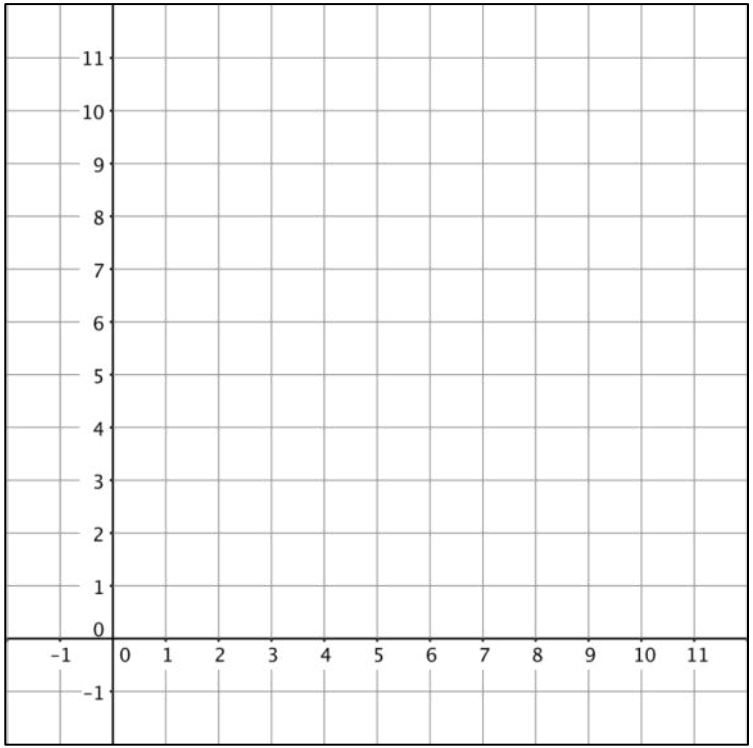
What do you notice about the graph?

Use the applet on the Student Materials site:

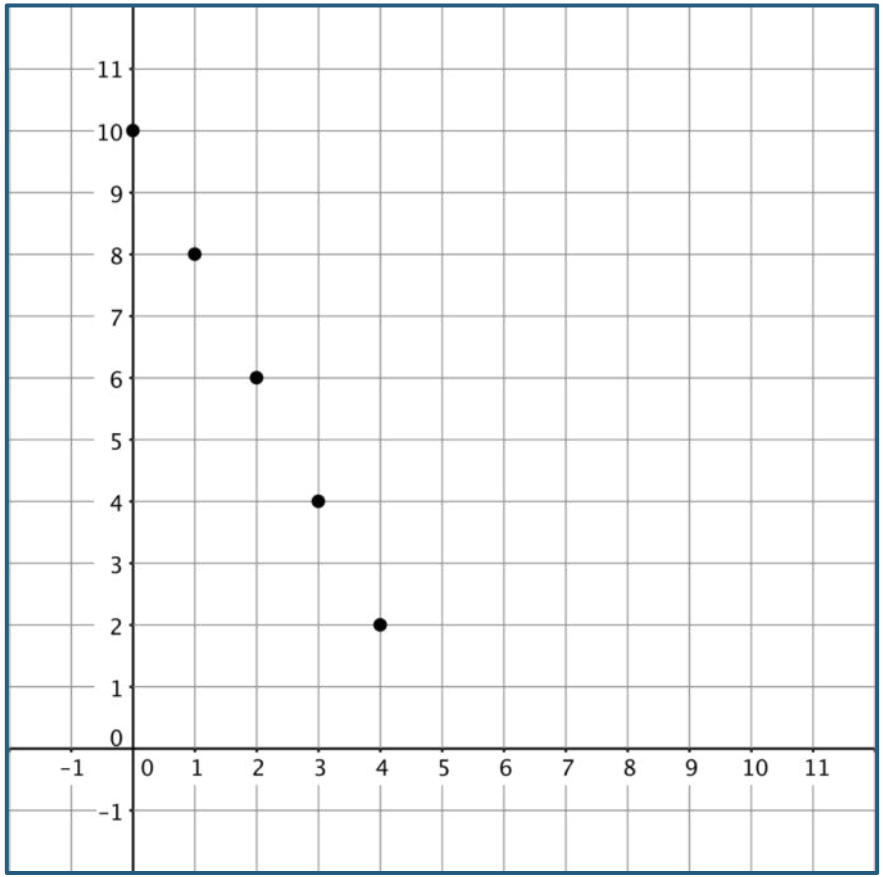
→Unit 2

→Lesson 10

→Activity 10.1



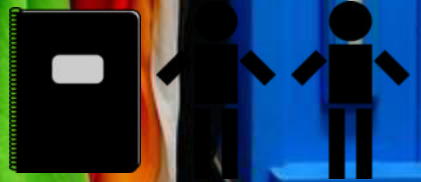
What do you notice about the graph?



T-shirts for Sale

Activity 10.2

- Think Pair Share



Begin working on your own. (5 min.)

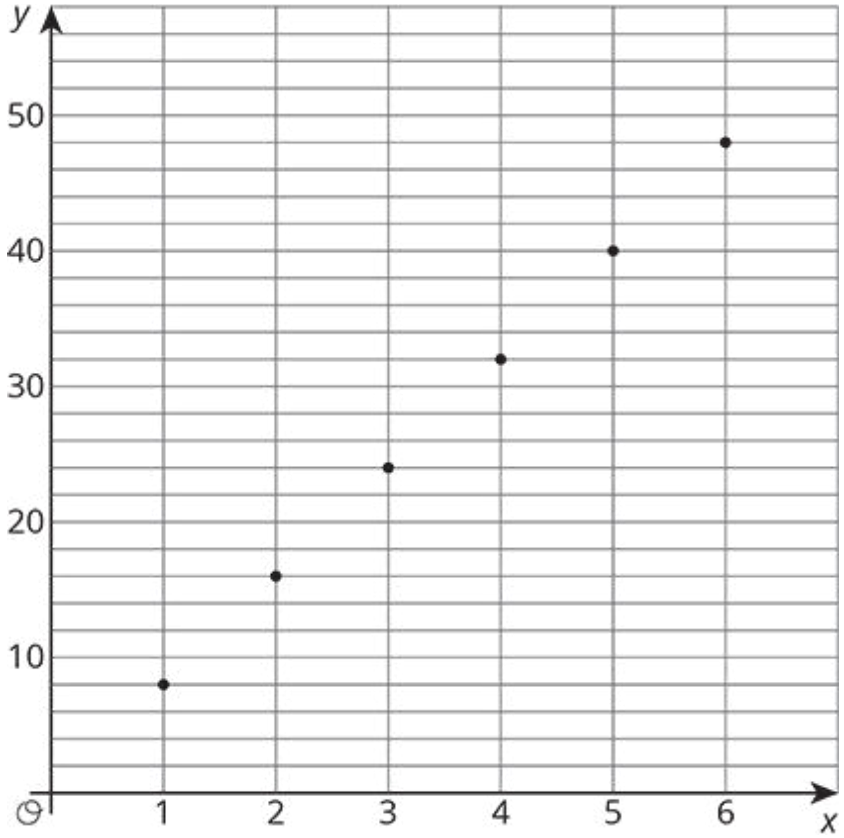
Discuss your answers as a team. Then we'll talk as a class!

Some T-shirts cost $8 each.

- What does *x* represent?
- What does *y* represent?
- Is there a proportional relationship between *x* and *y*?

x	*y*
1	8
2	16
3	24
4	32
5	40
6	48

- What do you notice about the plotted points?
- Could we buy 0 shirts? 7 shirts? 10 shirts? ½ shirt?
- **Suppose instead of price per shirt, this graph displayed the cost of cherries that are $8 per pound. How could we change the graph?**



Matching Tables & Graphs

Activity 10.3

Each pair of students will be given cards showing tables and graphs.

1. Examine the graphs closely.
   What is the same/different about the graphs?
2. Sort the graphs into categories of your choosing and label each category.
3. Then, match each table with a graph.
   - Explain how you know each is a match.
   - Listen carefully. If you disagree, reach an agreement together.

Trade places with another group.

A. How are the categories the same as yours? How are they different?

B. Head back to your seat. Make changes based on the other group's work if you'd like.

Which of the relationships are proportional?

2B, 4D, 7F, 8I, 9C

What have you noticed about the graphs of proportional relationships?

Do you think this is true for *all* graphs of proportional relationships?

Proportional Relationships...

- make a straight line
- travel through the **origin**
  - The **origin** is the point (0,0)

What does the graph of a proportional relationship look like?

Today's Goal:

- ❑ I know that the graphs of a proportional relationship lies on a line through (0.0).

Which Are Not Proportional?

Cool Down