

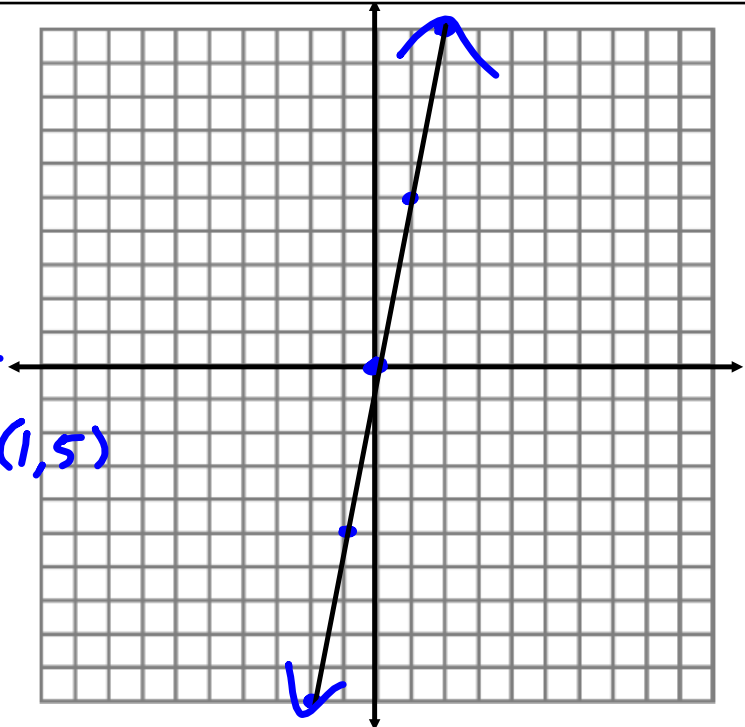
Warm up:

Graph.

$$y = 5x$$

X	5x	Y
3	15	15
2	10	10
1	5	5
0	0	0
-1	-5	-5
-2	-10	-10
-3	-15	-15

(1, 5)



Write and graph functions for the following situations.

1) Cheddar cheese costs \$4/lb.

2) Elise runs 1.5mi per day.

$$y = 1.5x$$

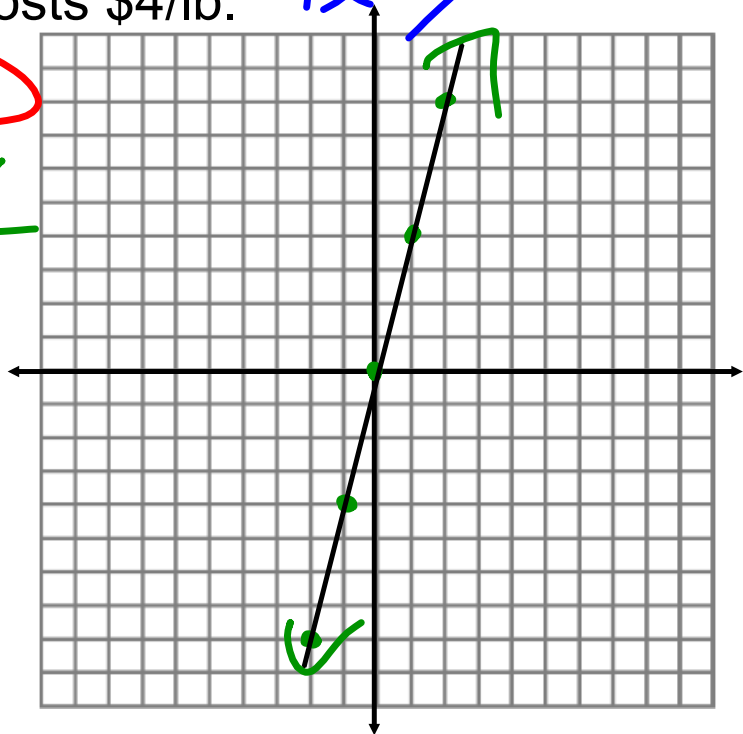
3) Jack is running at a speed of 4.2m/s.

1) Cheddar cheese costs \$4/lb.

$$4x = y$$

$$y = 4x$$

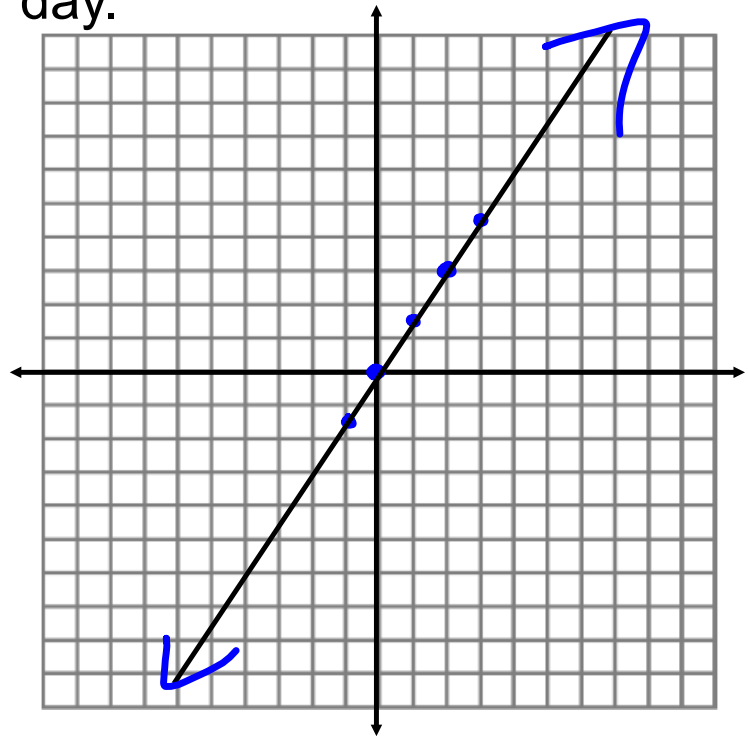
x	4x	y
0	4(0)	0
1	4(1)	4
2	4(2)	8
-1	4(-1)	-4
-2	4(-2)	-8



2) Elise runs 1.5mi per day.

$$y = 1.5x$$

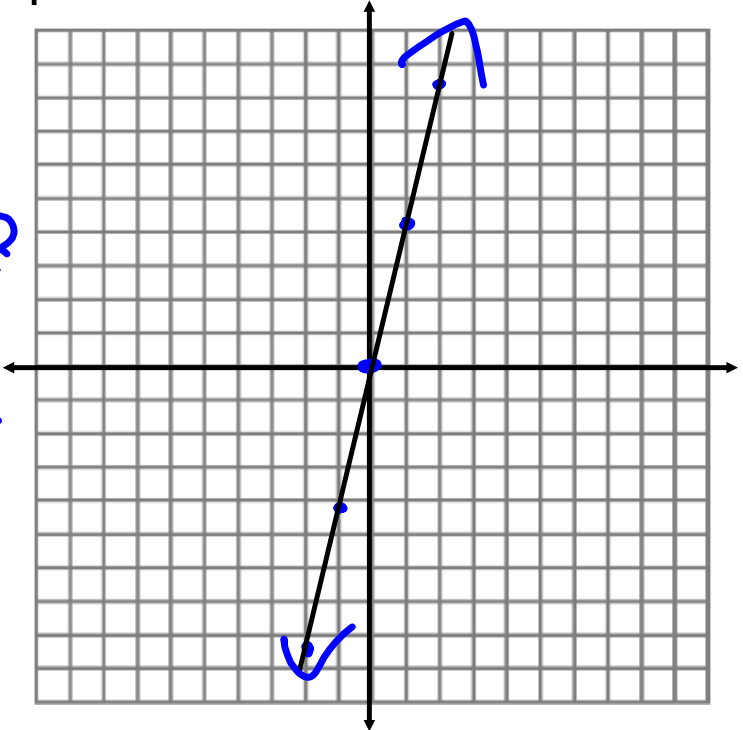
x	1.5x	y
0	1.5(0)	0
1 mi	1.5(1)	1.5
2 mi	1.5(2)	3
3 mi	1.5(3)	4.5
-1 mi	1.5(-1)	-1.5



3) Jack is running at a speed of 4.2m/s.

$$y = 4.2x$$

x	4.2x	y
-1	4.2(-1)	-4.2
-2	4.2(-2)	-8.4
1	4.2(1)	4.2
2	4.2(2)	8.4
0	4.2(0)	0
3	4.2(3)	12.6



Showdown

Paul ate 32 hot dogs in 12 minutes. What was his unit rate in hot dogs per minute? Round to the nearest hundredth if necessary.

$$\frac{32}{12} = 2.666666\overline{6}$$

$$2.67 \text{ hot dogs/min}$$

Teresa shucked 10 ears of corn in 4 minutes. At this rate, how long would it take her to shuck 24 ears of corn?

$$\frac{10}{4} = \frac{24}{x}$$

$$\begin{array}{r} 10x = 96 \\ \hline 10 \quad 10 \\ \hline x = 9.6 \end{array}$$

9.6 min

Yesterday, Dan waited on 8 tables and made \$76. Today, he waited on 10 tables and made \$95. Was the money he made proportional to the number of tables he had?

Solve.

$$\frac{6}{8} = \frac{n}{18}$$

The Thompson family drove 1452 miles in 3 days. At that rate, how far would they travel in 10 days?

A store charges \$19 for a bag of 40 shrimp.
What is the unit price?

A store charges \$18 for a pack of 10 pork chops and \$12.60 for a pack of 7. Is the price proportional to the number of pork chops purchased?

Solve.

$$\frac{3}{x} = \frac{5}{4}$$

Jimmy ran 13 miles in 2.7 hours. What was his unit rate?

Nancy can type 1178 words in 19 minutes. What is her unit rate?

