

Comparing Proportional Relationships

Problem # 1

Which proportional relationship is increasing at a greater rate?

Store A	# of apples purchased	0	1	2	3
	Total cost	\$.00	\$.40	\$.80	\$1.20

Store B offers apples for \$.50 each.

Answer for Problem 1

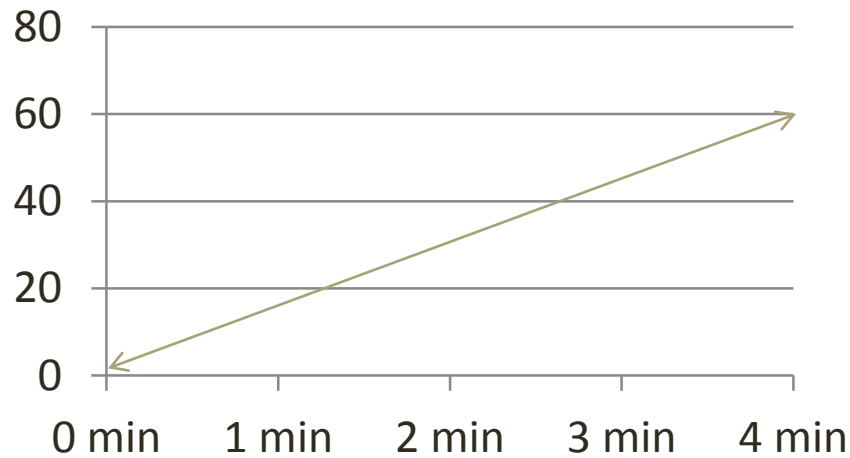
Store B has a greater increase since it goes up \$.50 per apple where the table shows an increase of only \$.40 per apple.

Problem 2

Which proportional representation is increasing slower?

Miles

A



Miles

B

Elmer drives at a steady pace. After 6 minutes he has gone 80 miles.

Answer to problem 2.

Proportional relationship B is slower.
 $80 \text{ miles} / 6 \text{ minutes} = 13.33 \text{ miles per min.}$
Relationship A increased by 15 miles every min ($60 \text{ miles} / 4 \text{ min} = 15$).

Explanation

Proportional relationships can be represented in words, equations, tables, or graphs. All you need to do is find the *unit rate* of change by dividing. Once you have the unit rate of change it is easy to compare relationships. **Remember**, it is only proportional if the data is linear and goes through the point $(0,0)$.