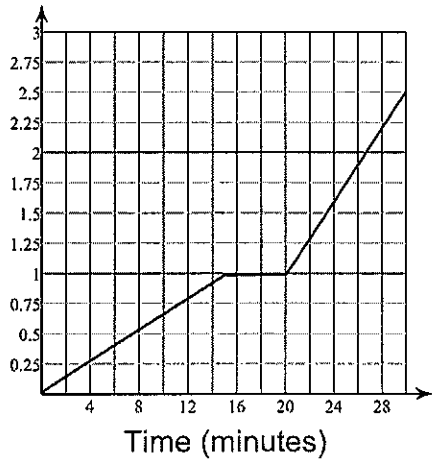
Algebra 1 ECA Remediation Name Answer Key

Homework 8.2

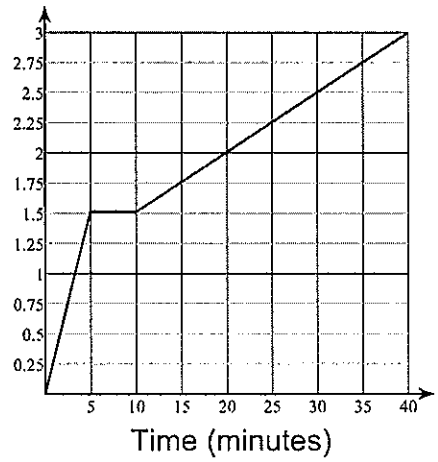
1) Julie walked from school to her home. The graph below shows Julie's distance from home over time.

Julie's Walk from School to Home



2) Emily skated to a friend's house. The graph below shows Emily's distance from home over time.

Emily's Skated to a Friend's House



3) On what time interval is Julie traveling at 4 mph?

speed = $\frac{1 \text{ mile}}{15 \text{ min}} = \frac{1 \text{ mile}}{1/4 \text{ hr}} = (1 \text{ mile})4 = 4 \text{ miles/hr}$

(first 15 minutes)

4) On what time interval is Emily traveling at 3 mph?

speed = $\frac{1.5 \text{ miles}}{30 \text{ min}} = \frac{1.5 \text{ miles}}{1/2 \text{ hr}} = (1.5 \text{ miles})(2) = 3 \text{ mph}$

(10 min to 40 min)

5) On what time interval is Julie stopped?

15 min to 20 min

6) On what time interval is Emily stopped?

5 min to 10 min

7) On what time interval is Julie traveling the fastest?

20 min to 30 min

↳ steepest

8) On what time interval is Emily traveling the fastest?

0 min to 5 min

Find the slope of the line through each pair of points.

9) (14, 2), (–6, –8)

$m = \frac{2 - -8}{14 - -6}$

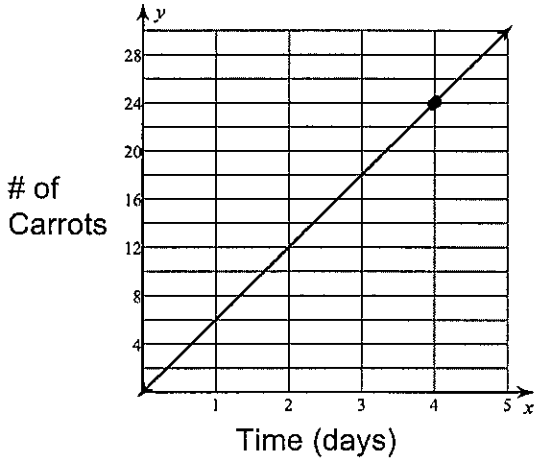
$= \frac{10}{20} = \frac{1}{2}$

10) (18, –5), (4, –4)

$m = \frac{-4 - -5}{4 - 18} = \frac{1}{-14}$

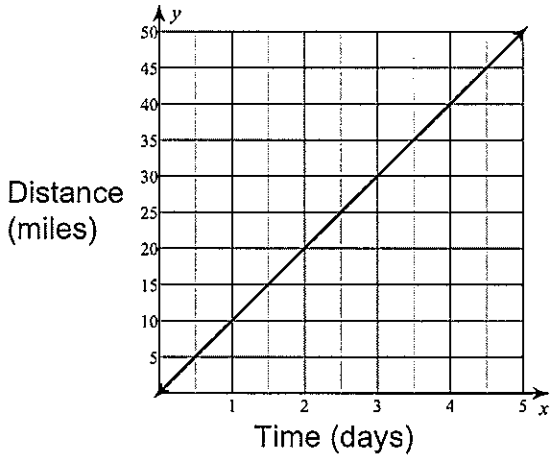
11) The graph below represents the total number of times a student orders carrots at lunch over a 5 - day period.

Carrots Ordered



12) The graph below represents the total number of miles a soccer mom travels to soccer practice over a 5 - day period.

Soccer Mom's Travels



13) What is the slope of this line segment. Include the appropriate units in your answer.

$\text{slope} = \frac{24 \text{ carrots}}{4 \text{ days}} = \frac{6 \text{ carrots}}{1 \text{ day}}$

14) What is the slope of this line segment. Include the appropriate units in your answer.

$\text{slope} = \frac{40 \text{ miles}}{4 \text{ days}} = \frac{10 \text{ miles}}{1 \text{ day}}$

15) Write an equation that represents the total number of Carrots, C, that are ordered after, d, days.

$C = 6d$

16) Write an equation that represents the total number of miles, M, traveled after, d, days.

$M = 10d$

17) If this trend continues, how many carrots will be ordered in 30 days?

$C = 6(30)$

$C = 180$ carrots

18) If this trend continues, how many miles will the soccer mom travel in 24 days?

$M = 10(24)$

$= 240$ miles

Answers to Homework 8.2

3) The first 15 minutes

4) 10 minutes to 40 minutes

5) 15 minutes to 20 minutes

6) 5 minutes to 10 minutes

7) 20 minutes to 30 minutes

8) During the first 5 minutes

9) $\frac{1}{2}$

10) $-\frac{1}{14}$

13) $\frac{6}{1}$ Carrots per Day

14) $\frac{10}{1}$ Miles per Day

15) $C = 6d$

16) $M = 10d$

17) 180 carrots

18) 240 miles