Algebra 1 ECA Remediation Name Answer Key

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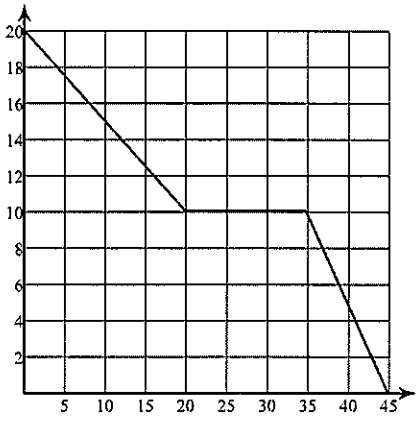
Homework 8.1

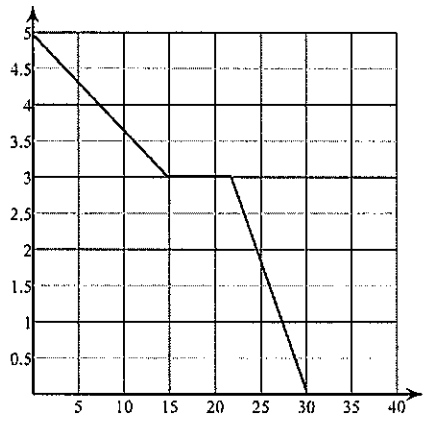
Max rode his motorcycle home from work. The graph below shows Max's distance from home over time.

Max's Motorcycle Ride Home



Sam rode his skateboard to school. The graph below shows Sam's distance from school over time.

Sam's Skateboard Ride to School



3) On what time interval is Max traveling at 30 mph?

Speed = $\frac{10\text{ m}}{20\text{ min}} = \frac{10\text{ m}}{1/3\text{ hr}} = (10\text{ miles})3$
$= 30\text{ m/hr}$

(first 20 minutes)

4) On what time interval is Sam traveling at 8 mph?

speed = $\frac{2\text{ miles}}{15\text{ min}} = \frac{2\text{ miles}}{1/4\text{ hr}} = (2\text{ miles})4$
$= 8\text{ mph}$

(first 15 minutes)

5) On what time interval is Max stopped?

20 min to 35 min

6) On what time interval is Sam stopped?

15 min to 22 min

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

Steepest →
35 min to 45 min

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

22 min to 30 min

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

9) (8, 16), (–6, –14)

$m = \frac{-14 - 16}{-6 - 8}$

$= \frac{-30}{-14}$

$= \frac{15}{7}$

10) (4, –5), (–15, 10)

$m = \frac{-5 - 10}{4 + +15} = \frac{-15}{19}$

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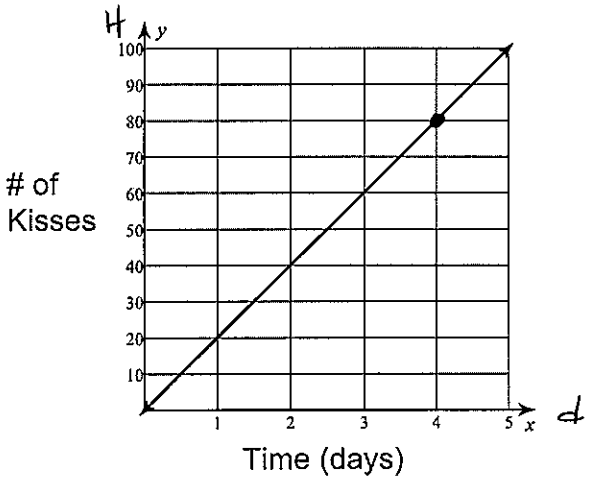
The graph below represents the total number of times a certain teacher eats a Hershy's Kiss over a 5 - day period.

Hershy's Kisses Eaten



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

$\frac{80 \text{ Kisses}}{4 \text{ days}} = 20 \text{ Kisses/day}$

15) Write an equation that represents the total number of Hershy Kisses, H, are eaten after, d, days.

$H = 20d$

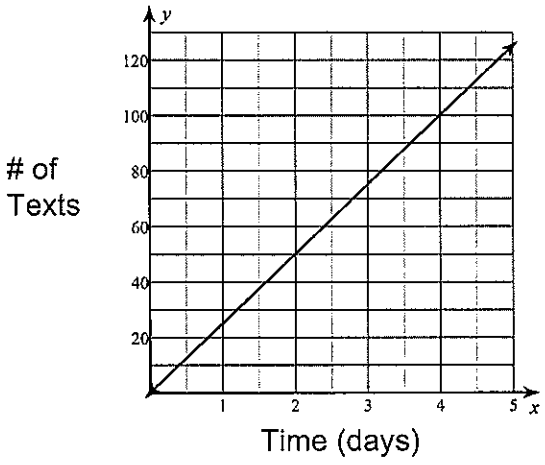
17) If this trend continues, how many Hershy Kisses will this teacher eat in 15 days?

$H = 20(15)$

$H = 300 \text{ Kisses}$

The graph below represents the total number of times a text message is sent by a teenage girl over a 5 - day period.

Text messages Sent



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

$\frac{100 \text{ Texts}}{4 \text{ days}} = \frac{25 \text{ texts}}{1 \text{ day}}$

16) Write an equation that represents the total number of text messages, T, are sent after, d, days.

$T = 25d$

18) If this trend continues, how many text messages will be sent in 12 days?

$T = 25(12)$

$= 300 \text{ text messages}$

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Answers to Homework 8.1

3) The first 20 minutes
4) The first 15 minutes
5) 20 minutes to 35 minutes
6) 15 minutes to 22 minutes
7) 35 minutes to 45 minutes
8) 22 minutes to 30 minutes
9) $\frac{15}{7}$
10) $-\frac{15}{19}$
13) $\frac{20}{1}$ Hershy Kisses per Day
14) $\frac{25}{1}$ Text Messges per Day
15) $H = 20d$
16) $T = 25d$
17) 300 Hershy Kisses
18) 300 Text Messages

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