Algebra 1 ECA Remediaiton

Name Answer Key

Homework 23.1

Find each product.

1) $(6p+5)(-8p-8)$

$6p(-8p) + 6p(-8) + 5(-8p) + 5(-8)$

$-48p^2 \underbrace{-48p - 40p} - 40$

$-48p^2 - 88p - 40$

2) $(-7x-7)(8x+5)$

$-7x(8x) - 7x(5) - 7(8x) - 7(5)$

$-56x^2 \underbrace{-35x - 56x} - 35$

$-56x^2 - 91x - 35$

3) $(-6m+8)(-8m+6)$

$-6m(-8m) - 6m(6) + 8(-8m) + 8(6)$

$48m^2 \underbrace{-36m - 64m} + 48$

$48m^2 - 100m + 48$

4) $(7m-4)^2$

$(7m-4)(7m-4)$

$7m(7m) + 7m(-4) - 4(7m) - 4(-4)$

$49m^2 \underbrace{-28m - 28m} + 16$

$49m^2 - 56m + 16$

5) $(2n+7)^2$

$(2n+7)(2n+7)$

$2n(2n) + 2n(7) + 7(2n) + 7(7)$

$4n^2 \underbrace{+14n + 14n} + 49$

$4n^2 + 28n + 49$

6) $(6x-1)^2$

$(6x-1)(6x-1)$

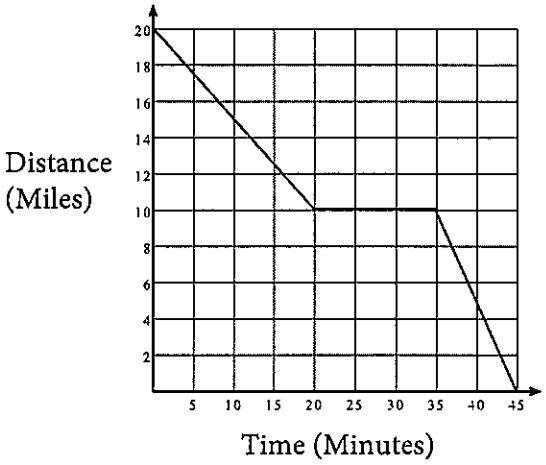
$6x(6x) + 6x(-1) - 1(6x) - 1(-1)$

$36x^2 \underbrace{-6x - 6x} + 1$

$36x^2 - 12x + 1$

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

Max's Motorcycle Ride Home



7) On what time interval is Max stopped?

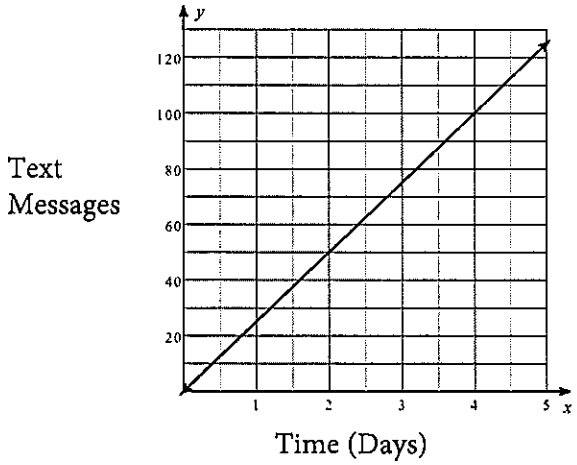
20min to 35min

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

35min to 45min

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



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

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

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

$T = 25d$

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

$T = 25(12)$

$T = 300$ text messages

Answers to Homework 23.1

1) $-48p^2 - 88p - 40$ 2) $-56x^2 - 91x - 35$ 3) $48m^2 - 100m + 48$ 4) $49m^2 - 56m + 16$
5) $4n^2 + 28n + 49$ 6) $36x^2 - 12x + 1$

7) 20 minutes to 35 minutes 8) 35 minutes to 45 minutes 9) $\frac{25}{1}$ Text Messges per Day

10) T = 25d 11) 240 Text Messages