

Name: _____ Page Number: 1
 Class: Math 1301 Date: 1-22-2013
 Topic/Section: Change and Percent Change

Examples and Vocabulary		Notes/Comments/Questions
Elapsed years from 1990		
$x =$ Calendar Year	$y =$ Number of fatal crashes with teen drivers in Texas	
7 1997	533	
8 1998	540	
9 1999	550	Why do we measure change in different ways?
10 2000	580	
11 2001	630	
12 2002	625	What are elapsed years? Why do we use them?
13 2003	545	
14 2004	500	
15 2005	480	Why do label quantities with variables?
16 2006	460	
17 2007	419	

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Examples and Vocabulary	Notes/Comments/Questions
① What is the change in the number of fatal crashes from 1997 to 2002? Interpret. $\text{change} = \text{last} - \text{first} = C_2 - C_1$ $= 625 - 533 = 92$	From 1997 to 2002, the number of fatal crashes increased by 92.
② What is the change in y from $x = 12$ to $x = 17$? Interpret. $\text{change} = \text{last} - \text{first}$ $= 419 - 625 = -206$ From 2002 to 2007, the number of fatal accidents decreased 206.	What mistakes can we make in interpreting change?

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Examples and Vocabulary	Notes/Comments/Questions
③ What is the percent change in y from $x=5$ to $x=15$? Interpret. $\text{percent change} = \frac{\text{last} - \text{first}}{\text{first}} \times 100\%$ $= \frac{44.2 - 35}{35} \times 100\%$ $= \frac{9.2}{35} \times 100\%$ $\sim 26.3\%$	From 1985 to 1995, the number of antenarions increased by 26.3%. Why is percent change useful in measuring change? How do we calculate percent change? How do we interpret it?
④ What is the percent change in y from $x=25$ to $x=30$? Interpret.	

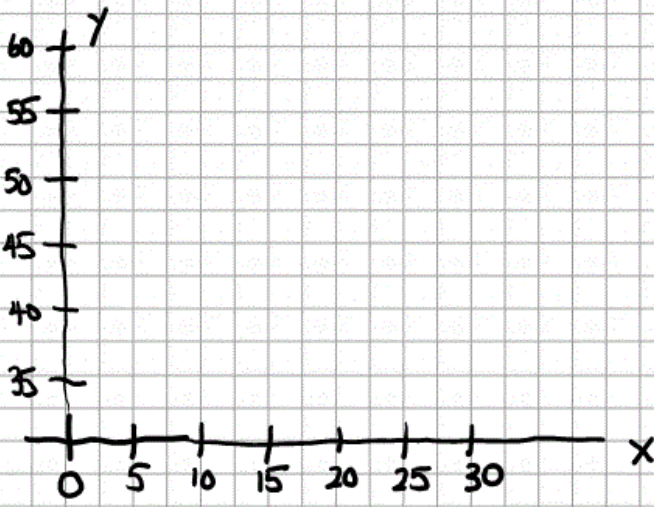
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 Topic/Section: Relations and Scatter Plots

Examples and Vocabulary	Notes/Comments/Questions
<u>Relation -</u> a set of ordered pairs. We call on x-coordinate on input and a y-coordinate on output.	
<u>Domain -</u> the set of all x-coordinates of a relation (i.e. the set of inputs)	
<u>Range -</u> the set of all y-coordinates of a relation (i.e. the set of outputs)	

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Examples and Vocabulary	Notes/Comments/Questions
⑤ Express the table on page 3 as a relation.	How can we think of a table of data pairs as a relation? How do we find the domain and range?

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Examples and Vocabulary	Notes/Comments/Questions
⑥ Make a scatter plot of the relation in problem 5. 	Why are Scatter plots useful? What is a graphing window? How do we denote a graphing window?