

Bridge to Algebra 2

2.6 & 2.8 QUIZ REVIEW CYU

- Use when you get it right all by yourself
- S** Use when you did it all by yourself, but made a silly mistake
- H** Use when you could do it alone with a little help from teacher or peer
- G** Use when you completed the problem in a group
- X** Use when a question was attempted but wrong (get help)
- N** Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Percent Problems	3, 5	1, 2, 6	13
Percent Increase/Decrease			4, 14
Mark-up/Discount			
Circle/Bar Graphs	5	6	
Solving Linear Inequalities	7, 8, 15	9, 10	11, 12
Interval Notation	7, 8, 15	9, 10	11, 12
Graphing on a Number Line	7, 8, 15	9, 10	11, 12

2.6 Percent Problem Solving

Find each of the following. Show work to earn full credit.

1. The number 59.5 is what percent of 85?

$$59.5 = x(85) \quad x = 0.7 \quad \boxed{70\%}$$

2. The number 768 is 60% of what number?

$$768 = 0.6(x) \quad \boxed{x = 1280}$$

3. A recent survey found that 79% of Americans use the Internet. If a city has a population of 76,000, how many people in the city would you expect to use the Internet?

$$0.79(76,000) = \boxed{60,040 \text{ people}}$$

4. The ACT Assessment is a college entrance exam taken by about 57% of college-bound students. The national average score was 20.7 in 1993 and rose to 21.0 in 2014. Find the percent of increase. (Round to the nearest hundredth of a percent.)

$$x = 21.0 - 20.7 \quad 0.3 = x(20.7)$$

$$x = 0.3 \quad 0.0145 = x$$

$$\boxed{1.45\%}$$

The graph below shows the percent of cell phone users who have engaged in various behaviors while driving and talking on their cell phones. Use this graph to answer the next two problems.

5. What is the most common effect of cell phone use on driving?

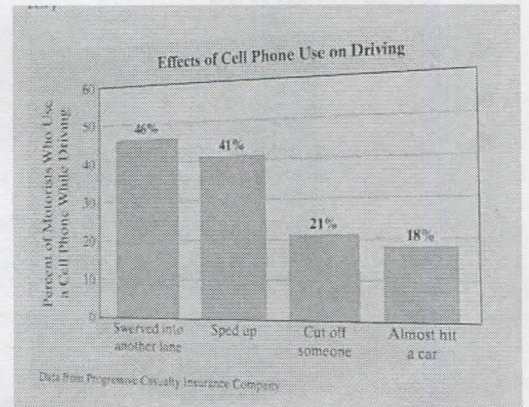
swerved into another lane

6. Suppose that a cell-phone service has an estimated 4600 customers who use their cell phones while driving. How many of these customers would you expect to have sped up while driving and talking on their cell phones?

41% of 4600

0.41 (4600)

= 1886 customers



2.8 Solving Linear Inequalities

Solve and graph the solutions of each of the following inequalities.

7. $x \leq -2$

$(-\infty, -2]$



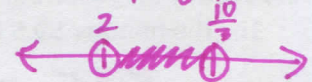
9. $-2x \geq -20$

$(-\infty, 10]$



11. $2 \leq 3x - 4 < 6$

$(2, \frac{10}{3})$



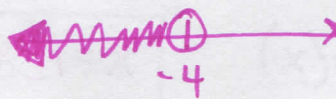
8. $-1 < x < 1$

$(-1, 1)$



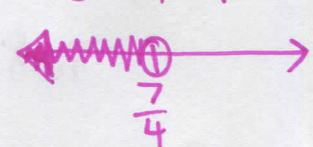
10. $5x - 7 > 8x + 5$

$(-\infty, -4)$



12. $-2(x - 5) > 2(3x - 2)$

$(-\infty, \frac{7}{4})$



MIXED REVIEW

Solve for the specified variable.

13. What number is 26% of 85?

22.1

14. A company recently increased its number of employees from 235 to 282. Find the percent of increase.

20%

Solve each inequality. Graph the solution set.

15. $-5x < 20$



CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

