

Name: Key Date: \_\_\_\_\_ Hr: \_\_\_\_\_

**2.4 – 2.5 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

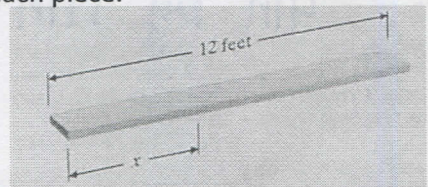
CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Problem Solving	3	1, 13	2
Formulas & Problem Solving	4, 6, 8	7	5, 9
Evaluating Equations	4, 8		9
Solving Literal Equations	6	7	5
Solving Equations	10	12	11
Solving & Graphing Inequalities		14	

**2.4 An Introduction to Problem Solving**

Solve each of the following.

1. A 12-foot board is to be divided into two pieces so that one piece is twice as long as the other. If  $x$  represents the length of the shorter piece, find the length of each piece.

$$4ft + \frac{1}{2} 8ft$$



2. Find three consecutive integers whose sum is -114.

$$-37, -38, -39$$

3. Double the sum of a number and 6 is the opposite of the number. Find the number.

$$x = -4$$

**2.5 Formulas & Problem Solving**

Substitute the given values into the given formulas and solve for the unknowns variable.

4.  $V = lwh$ ;  $V = 192$ ,  $l = 8$ ,  $w = 6$

$$h = 4$$

Solve each equation as indicated.

5.  $r = vst - 5$  for  $s$

$$s = \frac{r+5}{vt}$$

6.  $3x - 6y = -2$  for  $y$

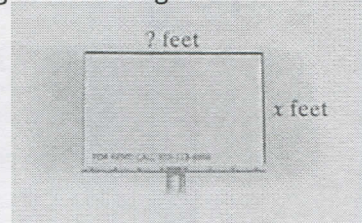
$$y = \frac{1}{2}x + \frac{1}{3}$$

7.  $C = 2\pi r$  for  $\pi$

$$\pi = \frac{C}{2r}$$

8. The perimeter of a rectangular billboard is 60 feet and has a length 6 feet longer than its width. Find the dimensions of the billboard.

12ft by 18ft



9. On April 28, 2001, the highest temperature recorded in the United States was  $104^{\circ}\text{F}$ , which occurred in Death Valley, California. Convert this temperature to degrees Celsius.

$40^{\circ}\text{C}$

**MIXED REVIEW:** Solve each equation.

10.  $2(3y - 4) = 6 + 7y$

$y = -18$

11.  $\frac{x}{3} - 2 = 5$

$x = 21$

12.  $7x - 3x + 2 = 2(2x - 1)$

$\emptyset$

**Solve.**

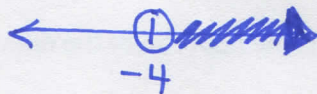
13. A 23-inch piece of string is to be cut into two pieces so that the length of the longer piece is three more than four times the shorter piece. If  $x$  represents the length of the shorter piece, find the lengths of both pieces.

4in by 19in

**Solve each inequality. Graph the solution set.**

14.  $-5x < 20$

$x > -4$



**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.

