Name: _____ Date: _____ Hr: _____

2.4 – 2.5 Quiz Review CYU

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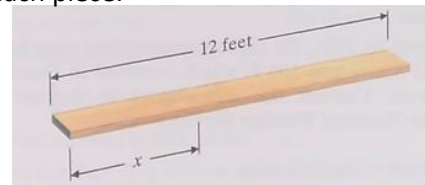
2. Find three consecutive integers whose sum is -114.

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

2.5 Formulas & Problem Solving

Substitute the given values into the given formulas and solve for the unknowns variable.
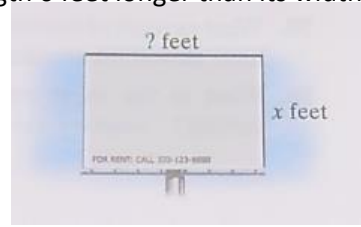
4. $V = lwh$; $V = 192$, $l = 8$, $w = 6$

Solve each equation as indicated.

5. $r = vst - 5$ for s 6. $3x - 6y = -2$ for y 7. $C = 2\pi r$ for π

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.

? feet

x feet

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9. On April 28, 2001, the highest temperature recorded in the United States was 104° F, which occurred in Death Valley, California. Convert this temperature to degrees Celsius.

MIXED REVIEW: *Solve each equation.*

10. 2(3y − 4) = 6 + 7y

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

12. 7x - 3x + 2 = 2 (2x − 1)

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.

Solve each inequality. Graph the solution set.

14. -5x < 20