

Quiz 1  
Math 80  
Version A ANSWERS

Name \_\_\_\_\_

You have 20 minutes to complete this quiz. No calculators allowed. Please show your work carefully! Good luck!

For numbers 1-4, solve each equation, if possible.

1.  $2 - (4x + 7) = 3 + 2(x + 2)$   
 $x = -2$

3.  $0.03x + 0.05(6000 - x) = 280$   
 $x = 1000$

2.  $\frac{1}{6} = -\frac{2}{3}y + \frac{3}{4}$   
 $y = \frac{7}{8}$

4.  $5(x + 3) - 3x = 2(x + 8)$   
 $\emptyset$  or No Solution

For numbers 5-6, solve each word problem by following the problem solving steps. Be sure to define your variable, write and solve an equation, and answer in a complete sentence.

5. A rectangular picture frame has a perimeter of 24 inches. The length is three less than twice the width. Find the dimensions of the frame.

The width is 5 inches and the length is 7 inches.

6. An investor wants to receive exactly \$400 annually from two investments. He has a total of \$5,000 to invest. He plans to invest part at 5% and part at 10% annual interest. Find the amount he should invest at each rate.

He should invest \$2000 at 5% and \$3000 at 10%.