## CUNY Problem set #1 ( To be used before Exam #1)

## Math 020,College of Staten Island

# Show all the work and circle the correct answer:

1) Nine is three times the difference between a number and two. Translate and solve.

   a) $x=\dfrac{11}{3}$      b) x=29      c) x=5      d) $x=\dfrac{27}{2}$

2) Solve: 8x- 3( x-4) = 2x-9

   a) x=−7      b) x=1      c) $x=-\dfrac{5}{3}$      d) x=7

3) Four times a number is twice the difference between number and three. Translate and solve.

   a) $x =-\dfrac{3}{2}$      b) $x =\dfrac{3}{2}$      c) x=−3      d) x=3

4) Solve: -3(x-4)+8= 4(2x-1)-9

   a) $x=\dfrac{11}{8}$      b) x=-3      c) $x= -\dfrac{11}{9}$      d) x=3

5) Solve for W: P=2L+2W

   a) w=P-L      b) $w=\dfrac{P-2L}{2}$      c) $w=\dfrac{2L-P}{2}$      d) w=L-P

6) Your annual salary is $55,000. If you get a 30% bonus this year, what will be your total salary this year?

   a) $165,000      b) $58,300      c) $71,500      d) $85,000

7) Solve for t:  $v = v_0 + at$

   a) $t = \dfrac{v - v_0}{a}$       b) $t = \dfrac{v_0 - v}{a}$       c) $t = v_0 - v - a$       d) $t = av - v_0$

8) You would like to purchase a new car from the dealer listed for $25,000. After negotiating you agree to pay $20,000 for the new car. What is the percent decrease?

   a) 25%     b) 20%     c) 15%     d) 10%

9) Eight less than three times a number is equal to the sum of a number and 4. Translate and solve.

   a) 8-3x =x+4       b) 3x-8= x+4       c) 8-3x=4x       d) 3x-8= 3(x+4)

10) Twelve subtracted from seven times a number is equal to the square of that number. Translate and solve.

   a) 12-7x=2x       b) $7x-12=x^2$       c) $12-7x = x^2$       d) $(7-12)x = x^2$

11)Solve: x-5(4x+8)≥ 3x- 2(x+10)

   a)  x ≥ -1         b) x ≥ 1         c) x ≤ 1         d) x≤ -1

12) Solve and graph the solution of -10x +5( x-3) > -4( x+2)

   a)  x < 5         b) x > -5         c) x < -7         d) x > 7

13) Solve and graph: -4(3x-5) < 2(x-11)

   a) x < 3         b) x > -3         c) x < -3         d) x > 3