OPMT 5701 Homework 1: Algrebra Review
BBA program

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

1) If $\frac{x}{5} + \frac{x-5}{10} = 7$, solve for $x$.

A) $\frac{2}{3}$ B) 4 C) $\frac{32}{15}$ D) 6 E) 25

2) If $A = p + prt$, then $r =$

A) $\frac{A}{p+pt}$ B) $\frac{A-p}{p+t}$ C) $A - p - pt$ D) $\frac{A-p}{pt}$ E) $\frac{A+p}{pt}$

**SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.**

3) Solve: $\frac{2}{3}x - 4 = 3$

4) Solve: $\frac{6y}{7} = -\frac{3}{5}$

5) Solve $2q - 1 = 2(1 - q)$

6) Solve: $x = 2x - (6 - x)$

7) Solve: $2(t - 1) - 3(t - 4) = 4t$

8) Solve: $3\left[2x - (1 + x) + 3(x - 2)\right] = 0$

9) Solve: $\frac{3}{2}(4x - 3) = 2\left[x - (4x - 3)\right]$

10) Solve: $x(x - 2) - (x + 1)^2 = 3$

11) Solve for $x$: $a(2 - x) = 3b$

12) Solve the equation $S = P(1 + rt)$ for $t$.

13) Solve the equation $y = mx + b$ for $x$ if $m = -2$, $b = 3$, and $y = 4$.

14) Sally earns \$15.00 per hour She has decided to automatically save one tenth of the money she earns after her weekly \$10.00 Health Care Costs have been subtracted. She wants to save at least \$50.00 each week. How many hours must she work each week?

1) E
2) D
3) $x = \frac{21}{2}$
4) $y = -\frac{7}{10}$
5) $q = \frac{3}{4}$
6) $x = 3$
7) $t = 2$
8) $x = \frac{7}{4}$
9) $x = \frac{7}{8}$
10) $x = -1$
11) $x = \frac{2a - 3b}{a}$
12) $t = \frac{S - P}{Pr}$
13) $x = -\frac{1}{2}$
14) 34 hours