LINEAR EQUATIONS IN ONE VARIABLE
(MAT 1190 SUPPLEMENTARY MATERIAL)

1. INTRODUCTION

Solve each equation. Check your answer.

1. $7x = 63$
2. $-3a = 144$
3. $-2m = -98$
4. $7x = -15$
5. $3x - 4 = 5$
6. $20 = 4y - 8$
7. $-d + 6 = -5$
8. $-t + 7 = -8$
9. $6z + 2 = 8$
10. $-5x - 2 = 13$
11. $12m + 3 = 12$
12. $\frac{3}{4}x - 2 = 16$
13. $\frac{5}{7}x + 4 = 14$
14. $5 - 6y - 8y = 61$

2. FORMULAS

Solve for the indicated variable.

1. $d = rt$ (for r)
2. $V = \pi r^2 h$ (for h)
3. $PV = nRT$ (for n)
4. $A = P + Prt$ (for r)
5. $P = 2l + 2w$ (for w)
6. $v_1 - v_0 = at$ (for v_0)
7. $E = H - PV$ (for P)

3. APPLIED PROBLEMS

1. Two college friends rent an apartment. They have to pay the landlord two months rent and a $500 security deposit when they sign the lease. The total amount they pay the landlord is $2800. What is the rent for one month?

Date: August 15, 2014.

2. Lashawn plans to put the money from her yard sale into an account and leaves it there for 4 years. She makes $750 and she puts it into an account that earns 4.25% simple interest. How much will be in Lashawns account at the end of the 4 years?

3. San Marino and Liechtenstein are two of the smallest countries in the world. Liechtenstein covers 38 square miles more than San Marino. If the total area of both countries is 86 square miles, what is the area of each country?

4. The sale price of a pair of shoes is $26 after a 20% discount. What was the original price of the pair of shoes?

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