MAC1105 College Algebra
1.1 Practice Problems

Solve the linear equations in questions 1-6.

1. $4x - 5 = 23$

2. $2x - 4(5x + 1) = 3x + 17$

3. $\dfrac{x}{4} = 2 - \dfrac{x-3}{3}$

4. $\dfrac{1}{3}(2x - 3) = \dfrac{4}{3}x - \dfrac{x+3}{6}$

5. $0.5x - 0.3 = 1.7$

6. $0.05(x + 2) + 0.22 = 0.03(x + 6)$

Solve the rational or quadratic equations. For the rational equations write the value of the variable that makes the denominator zero.

7. $\dfrac{4}{x}+2=\dfrac{3}{2x}$

8. $\dfrac{7}{x-5}+2=\dfrac{x+2}{x-5}$

9. $\dfrac{2}{x+1}+\dfrac{3}{x^2-1}=\dfrac{5}{x-1}$

10. $x(x+5)+x(x+1)=(2x+3)(x-4)$

Solve the following equations. Indicate what the solutions is or if it is one of the special cases. (No Solution or All Real Numbers)

11. $3x+2(x+4)=5x-7$

12. $2x+3x=7x$

13. $5x-3(x+1)=2x-3$