

**Classwork 10**  
Intermediate Algebra MTH 35  
**Topic: Solving Equations**

Name: \_\_\_\_\_

Solve the following equations.

1.  $3x - 7 = 0$

ANSWER

2.  $5x + 9 = 6$

ANSWER

3.  $3x - 7 = 4x + 3$

ANSWER

4.  $7x - 2 = 10 - 2x$

ANSWER

5.  $4 - 3x = 8 - 6x$

ANSWER

6.  $x^3 - x^2 = 0$

ANSWER

7.  $x^3 - x = 0$

ANSWER

8.  $x^2 - 5x - 14 = 0$

ANSWER

9.  $3x^2 - 4x - 4 = 0$

ANSWER

10.  $36x^3 + 18x^2 = 0$

ANSWER

11.  $3\sqrt{x} + 2 = 0$

ANSWER

12.  $4\sqrt[3]{x} - 8 = 0$

ANSWER

13.  $\sqrt{x} - x^2 = 0$

ANSWER

14.  $\sqrt{x} - \sqrt[3]{x} = 0$

ANSWER

15.  $\frac{9x^{7/2}}{2} - 16x = 0$

ANSWER

16.  $2 - \frac{30}{x} = 0$

ANSWER

17.  $3x - \frac{2}{x} = 0$

ANSWER

18.  $2x^2 - \frac{5}{x^2} = 0$

ANSWER

19.  $1 - \frac{x}{x^2 - 6} = 0$

ANSWER

20.  $x + 1 - \frac{1}{x - 1} = 0$

ANSWER

## Answers

1.  $x = 7/3$
2.  $x = -3/5$
3.  $x = -10$
4.  $x = 12/9$
5.  $x = 4/3$
6.  $x = 0, 1$
7.  $x = 0, 1, -1$
8.  $x = -2, 7$
9.  $x = -2/3, 2$
10.  $x = 0, -1/2$
11.  $x = 4/9$
12.  $x = 8$
13.  $x = 0, 1$ , factor out  $\sqrt{x}$ .
14.  $x = 0, 1$ , factor out  $\sqrt{x}$ .
15.  $x = 0, (32/9)^{2/5}$ , factor out  $x$ .
16.  $x = 15$
17.  $x = \sqrt{2/3}, -\sqrt{2/3}$
18.  $x = \sqrt[4]{5/2}, -\sqrt[4]{5/2}$
19.  $x = 3, -2$
20.  $x = \sqrt{2}, -\sqrt{2}$