

CP Algebra 2
Absolute Value Equations

Name: _____

1.) $\left|2x - \frac{7}{4}\right| = \frac{2}{3}$

2.) $5|3x - 8| + 4 = 3x - 2$

3.) $8x - \frac{7}{2} = 5x - \frac{1}{3}|2x + 7|$

4.) $\left|\frac{5}{3}x - \frac{7}{2}\right| = \left|x - \frac{1}{4}\right|$

5.) $8 - |3x + 7| = 2x - 9$

6.) $\frac{5}{6} - \frac{7}{2}x = \frac{8}{3}x - |4x - 1|$

7.) $|\sqrt{8}x - 5| = \sqrt{18}x - 6$

8.) $\left|5x - \frac{7}{8}\right| = |x + 1|$

9.) $5 - 2|3x - 4| = 3x + 1$

10.) $|8x + 7| = |5 - 6x|$

11.) $5x + \left|\frac{2}{3}x - 1\right| = 7x + 4$

12.) $3 - 2|5x - 1| = 3x - 8$

13.) $18 + 3|2x - 5| = 15 - 24x$

14.) $|3x + 1| = \left|\frac{7}{5}x - 4\right|$

15.) $|\sqrt{12}x - 9| = 8 - \sqrt{75}x$

16.) $|x - 4| + |x + 2| = 8$

17.) $\left|3x - \frac{\sqrt{54}}{3}\right| = \left|\frac{x}{2} - \sqrt{24}\right|$

18.) $\left|\frac{\sqrt{18}x}{5} - \frac{1}{2}\right| = \frac{3}{4} - \frac{\sqrt{50}x}{2}$

19.) $\left|\frac{\sqrt{8}x}{3} - \frac{5}{6}\right| = \frac{5}{2} - \sqrt{72}x$

20.) $\left|\frac{x}{4} - \sqrt{20}\right| = \left|\frac{\sqrt{45}}{2} - x\right|$