

Solve the equation by factoring.

1) $12x^2 + 28x + 2 = -13$
 $12x^2 + 28x + 15 = 0$
 $(2x+3)(6x+5) = 0$
 $2x+3=0$ or $6x+5=0$
 $x = -\frac{3}{2}$ or $x = -\frac{5}{6}$

A) $x = -\frac{5}{6}$ or $x = -\frac{3}{2}$
 B) $x = -\frac{6}{5}$ or $x = -\frac{3}{2}$
 C) $x = -\frac{5}{6}$ or $x = -\frac{3}{2}$
 D) $x = -\frac{6}{5}$ or $x = \frac{2}{3}$

2) $7x^2 - 13x = 0$
 $x(7x-13) = 0$
 $x=0$ or $7x-13=0$
 $x = \frac{13}{7}$

A) $x = -\frac{13}{7}$ or $x = 0$
 B) $x = \frac{13}{7}$ or $x = -\frac{13}{7}$
 C) $x = 0$
 D) $x = \frac{13}{7}$ or $x = 0$

Solve the equation by extracting the square roots.

3) $5x^2 = 400$
 $x^2 = 80$
 $x = \pm\sqrt{80}$

A) $x = 4\sqrt{5}$
 B) $x = 4$
 C) $x = 4\sqrt{5}$ or $x = -4\sqrt{5}$
 D) $x = 4$ or $x = -4$

4) $(3x+5)^2 = 121$
 $3x+5 = \pm 11$
 $3x+5 = 11$ or $3x+5 = -11$
 $x = \frac{11-5}{3}$ or $x = \frac{-11-5}{3}$

A) $x = -16$ or $x = 6$
 B) $x = -\frac{16}{3}$ or $x = 2$
 C) $x = 2$ or $x = \frac{13}{3}$
 D) $x = -\frac{16}{3}$ or $x = \frac{13}{3}$

Solve by completing the square.

5) $x^2 - 12x + 11 = 0$
 $x^2 - 12x + 36 = 25$
 $(x-6)^2 = 25$
 $x-6 = \pm 5$
 $x = 11$ or $x = 1$

A) 10, 1
 B) $\sqrt{11}, -\sqrt{11}$
 C) 11, 1
 D) -11, -1

1) C
 2) D
 3) C
 4) B
 5) C

Solve by completing the square.

5) $x^2 - 12x + 11 = 0$
 $x^2 - 12x + 36 = 25$
 $(x-6)^2 = 25$
 $x-6 = \pm 5$
 $x = 11$ or $x = 1$

A) 10, 1
 B) $\sqrt{11}, -\sqrt{11}$
 C) 11, 1
 D) -11, -1

Solve the equation using the quadratic formula.

6) $5x^2 + 8x + 1 = 0$
 $x = \frac{-4 \pm \sqrt{21}}{5}$ or $x = \frac{-4 - \sqrt{21}}{5}$
 $x = \frac{-8 \pm \sqrt{11}}{5}$ or $x = \frac{-8 - \sqrt{11}}{5}$

A) $x = -3$ or $x = 3$
 B) $x = -3$ or $x = 0$
 C) $x = \frac{-3 - \sqrt{17}}{2}$ or $x = \frac{-3 + \sqrt{17}}{2}$
 D) $x = \frac{-3 - \sqrt{17}}{2}$ or $x = \frac{-3 + \sqrt{17}}{2}$

7) $x^2 - 12x + 36 = 25$
 $(x-6)^2 = 25$
 $x-6 = \pm 5$
 $x = 11$ or $x = 1$

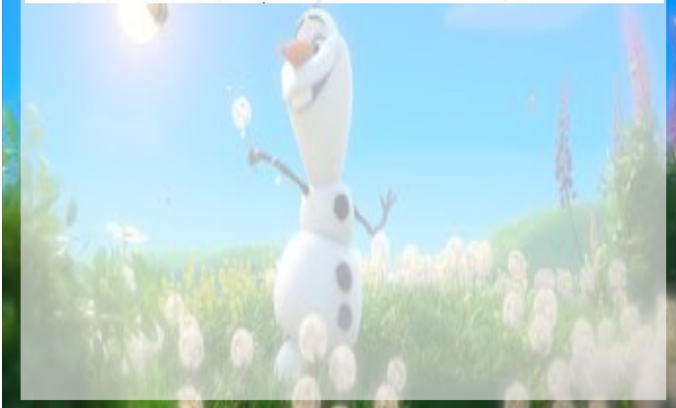
A) $x = -3$ or $x = 3$
 B) $x = -3$ or $x = 0$
 C) $x = \frac{-3 - \sqrt{17}}{2}$ or $x = \frac{-3 + \sqrt{17}}{2}$
 D) $x = \frac{-3 - \sqrt{17}}{2}$ or $x = \frac{-3 + \sqrt{17}}{2}$

1) C
 2) D
 3) C
 4) C
 5) C

9) $2x^2 + 11x + 1 = 0$
 $x = \frac{-11 \pm \sqrt{91}}{4}$

A) $x = -5.41$ or $x = -0.09$
 B) $x = 0$ or $x = 2.66$
 C) $x = -2.66$ or $x = 2.66$
 D) $x = -0.09$ or $x = 2.57$

1) A

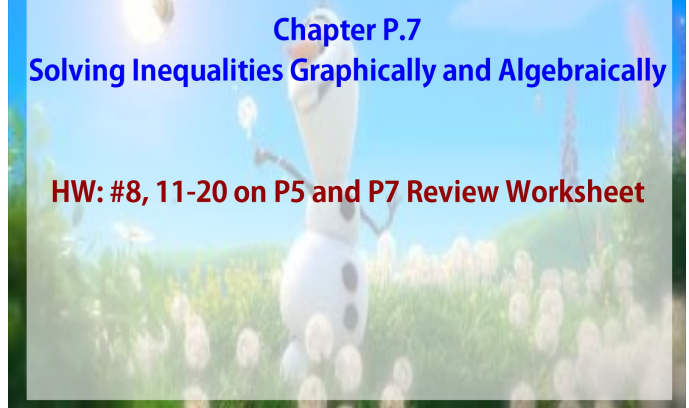


Precalculus

Chapter P.7

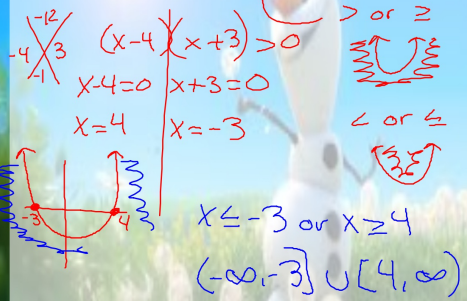
Solving Inequalities Graphically and Algebraically

HW: #8, 11-20 on P5 and P7 Review Worksheet



Solve a Quadratic Inequality

Solve $x^2 - x - 12 > 0$



Solve a Quadratic Inequality

Solve $2x^2 + 3x \leq 20$ $[-4, 5/2]$

