Algebra 2 Name_____

# Mixed Review 4

Date_____ Period____

**Simplify. Your answer should contain only positive exponents.**

1) $\dfrac{(vu^{-4})^{-2}}{2u^2v^2 \cdot u^{-1}v^{-2}}$

2) $\dfrac{(2x^3y^{-3})^2}{x^4y^4 \cdot 2x^3y^{-3}}$

**Simplify.**

3) $-5\sqrt{98}$

4) $-3\sqrt{28}$

5) $\dfrac{\sqrt{63}}{6}$

6) $\dfrac{\sqrt{24}}{12}$

**Solve each equation.**

7) $|v-4|+3=14$

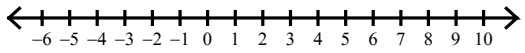
8) $-9|-n+10|=-45$

9) $-8|7n+4|=80$

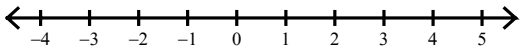
10) $-9|-6p-10|=-72$

**Solve each inequality and graph its solution.**

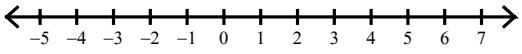
11) $\left|6-4p\right|-9\geq 5$



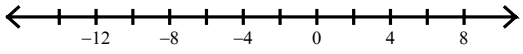

12) $6+\left|2-4v\right|\leq 20$




13) $\left|-10x+10\right|-5\geq 15$

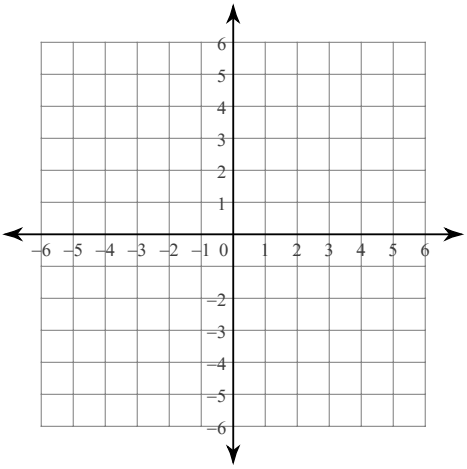



14) $-3\left|2a+4\right|\leq -48$

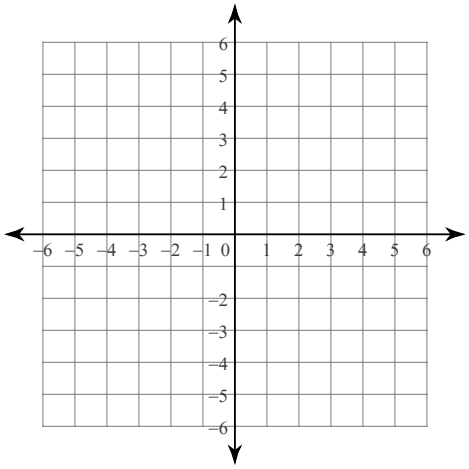



**Graph each equation.**

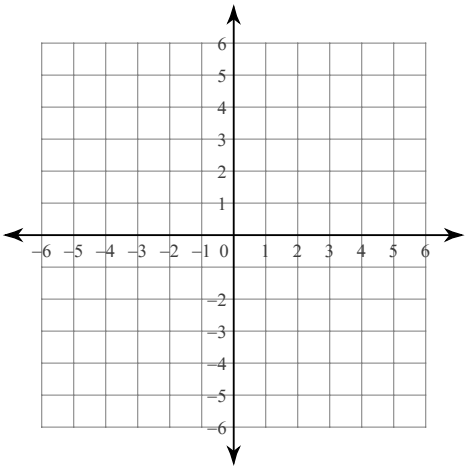
15) $y=-\left|x-2\right|-3$



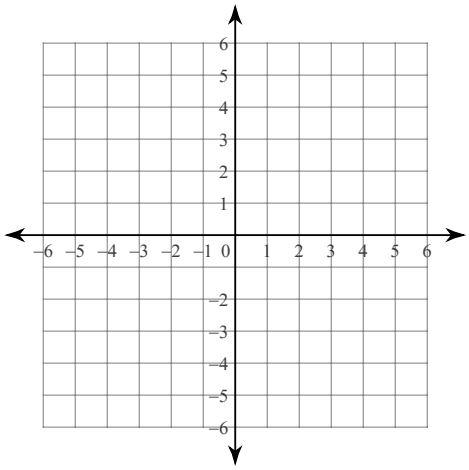
16) $y=-\left|x\right|+4$



17) $y=\left|x-3\right|+1$



18) $y=\left|x-2\right|$



# Answers to Mixed Review 4 (ID: 1)

1) $\frac{u^7}{2v^2}$

2) $\frac{2}{y^7x}$

3) $-35\sqrt{2}$

4) $-6\sqrt{7}$

5) $\frac{\sqrt{7}}{2}$

6) $\frac{\sqrt{6}}{6}$

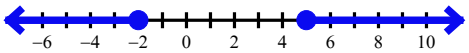
7) $\{15, -7\}$

8) $\{5, 15\}$

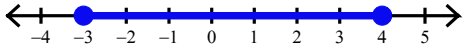
9) No solution.

10) $\left\{-3, -\frac{1}{3}\right\}$

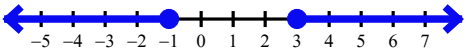
11) $p \le -2$ or $p \ge 5$ :



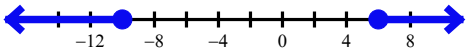

12) $-3 \le v \le 4$ :



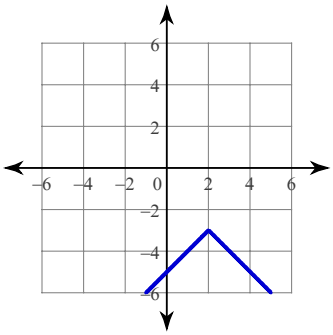

13) $x \le -1$ or $x \ge 3$ :



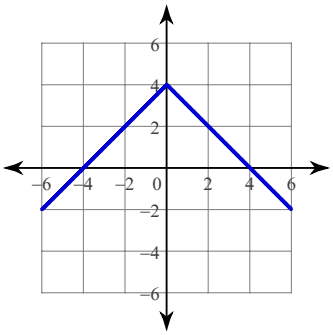

14) $a \ge 6$ or $a \le -10$ :



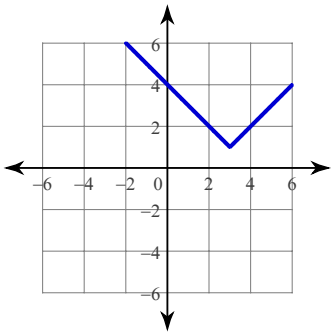

15)




16)




17)




18)