

2.4 Multiply Radicals

Date _____ Period _____

Simplify.

1) $\sqrt{15} \cdot \sqrt{5}$

2) $-\sqrt{3} \cdot -2\sqrt{12}$

3) $-4\sqrt{3}(\sqrt{6} + \sqrt{2})$

4) $\sqrt{10}(5 + \sqrt{2})$

5) $(5 - 5\sqrt{5})(-3 - 4\sqrt{5})$

6) $(4\sqrt{2} - 1)(-5\sqrt{2} + 5)$

7) $(\sqrt{3} + \sqrt{5})^2$

8) $(\sqrt{3} + \sqrt{2})(2\sqrt{3} - 5\sqrt{2})$

9) $(\sqrt{2} - \sqrt{3})(\sqrt{2} - 2\sqrt{3})$

10) $(3\sqrt{3} - 2)(-3\sqrt{3} + 5)$

11) $(-1 + 5\sqrt{2})(-4 + 5\sqrt{2})$

12) $(-4\sqrt{5} + 5)(\sqrt{5} - 4)$

$$13) \sqrt{12} \cdot \sqrt{15}$$

$$14) \sqrt{5} \cdot 5\sqrt{5}$$

$$15) 5\sqrt{6} \cdot \sqrt{6}$$

$$16) -2\sqrt{8} \cdot \sqrt{6}$$

REVIEW

17) Simplify.

$$\frac{a^{\frac{1}{4}}}{a^{\frac{1}{8}}}$$

18) Simplify.

$$\frac{x^{\frac{5}{2}}}{x^{\frac{1}{4}}}$$

19) Write in radical form.

$$b^{\frac{5}{3}}$$

20) Write in radical form.

$$n^{\frac{3}{4}}$$

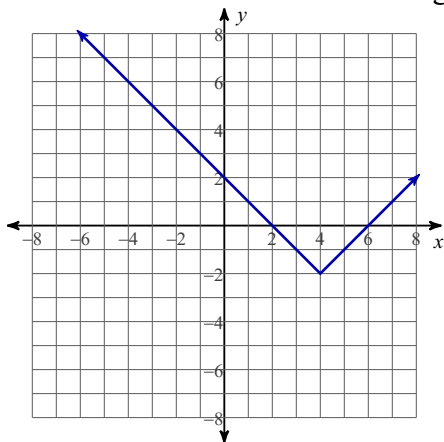
21) Simplify.

$$\sqrt{98x^2}$$

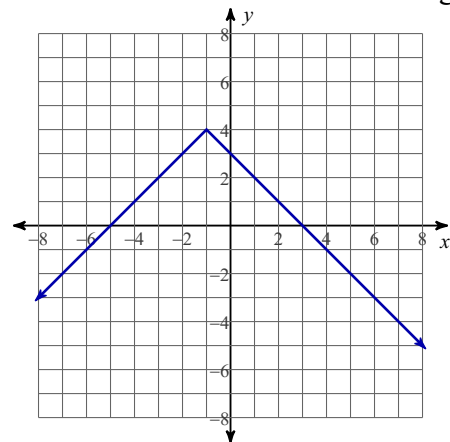
22) Simplify.

$$\sqrt{75n}$$

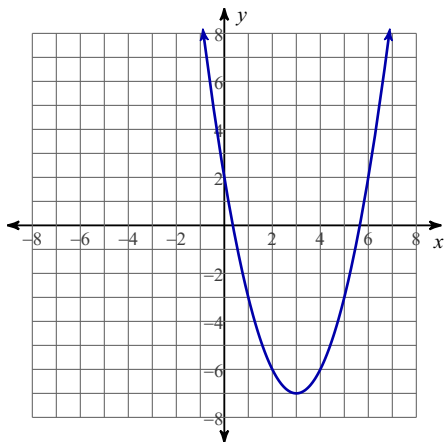
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- 25) The function $f(x) = x^2$ has been transformed and is graphed below, write an equation to model the transformations of the graph. Assume normal width.



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