

2.2 Simplifying Radicals

Date _____ Period _____

Simplify.

1) $\sqrt{112b^2}$

2) $\sqrt{36x^3}$

3) $\sqrt{72x^3}$

4) $\sqrt{96x^4}$

5) $\sqrt{180x^4y^4}$

6) $\sqrt{72a^3b^3}$

7) $\sqrt{98x^3y^2}$

8) $\sqrt{200m^4n}$

9) $4\sqrt{75n^3}$

10) $7\sqrt{112x^3}$

11) $7\sqrt{192x}$

12) $2\sqrt{28x^6}$

13) $\sqrt{32k^2}$

14) $\sqrt{45x^2}$

15) $\sqrt{50n}$

16) $\sqrt{32x^3}$

17) $-2\sqrt{147x^2y^3}$

18) $-7\sqrt{72x^3y^4}$

19) $4\sqrt{8xy^2}$

20) $-4\sqrt{200xy}$

REVIEW

21) A quadratic equation is shown.

$$y = x^2 + 19x - 20$$

What are the roots of the equation?

22) What are the solutions to the equation

$$x^2 - 7x + 4 = -2$$

23) What is the solution set of $x^2 - 3x - 18 = 0$?

24) A polynomial expression is given.

$$(2x^3 - 5x + 7)(x^2 + 1) - (x^5 + 7x + 7)$$

Simplify.

25) Two polynomials are shown.

$$x^2 + x - 3$$

$$3x + 8$$

Find the product.

26) Molly has $(4x + 10)$ dollars and Ron has $(-5x + 20)$ dollars.

a. How much money do they have altogether?

b. How much more money does Molly have than Ron?