Name _____ Date _____

LESSON 9.4

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Practice B

For use with the lesson "Use Square Roots to Solve Quadratic Equations"

Solve the equation.

1. $6x^2 - 24 = 0$

2. $8x^2 - 128 = 0$

3. $x^2 - 13 = 23$

4. $3x^2 - 60 = 87$

5. $2x^2 - 33 = 17$

6. $5x^2 - 200 = 205$

7. $4x^2 - 125 = -25$

8. $7x^2 - 50 = 13$

9. $\frac{1}{2}x^2 - \frac{1}{2} = 0$

Solve the equation. Round the solutions to the nearest hundredth.

10. $x^2 + 15 = 23$

11. $x^2 - 16 = -13$

12. $12 - x^2 = 17$

13. $3x^2 - 8 = 7$

14. $9 - x^2 = 9$

15. $4 + 5x^2 = 34$

16. $48 = 14 + 2x^2$

17. $8x^2 = 50$

18. $3x^2 + 23 = 18$

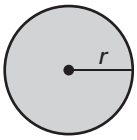
19. $(x - 3)^2 = 5$

20. $(x + 2)^2 = 10$

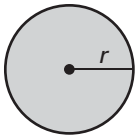
21. $3(x - 4)^2 = 18$

Use the given area *A* of the circle to find the radius *r* or the diameter *d* of the circle. Round the answer to the nearest hundredth, if necessary.

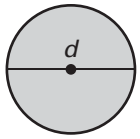
22. $A = 169\pi$ m^2



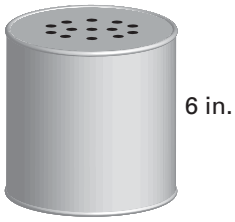
23. $A = 38\pi$ in.^{2}



24. $A = 45\pi$ cm^2



25. **Flower Seed** A manufacturer is making a cylindrical can that will hold and dispense flower seeds through small holes in the top of the can. The manufacturer wants the can to have a volume of 42 cubic inches and be 6 inches tall. What should the diameter of the can be? (*Hint:* Use the formula for volume, $V = \pi r^2 h$, where V is the volume, r is the radius, and h is the height.) Round your answer to the nearest inch.



26. **Stockpile** You can find the diameter D (in feet) of a conical pile of sand, dirt, etc. by using the formula $V = 0.2618hD^2$ where h is the height of the pile (in feet) and V is the volume of the pile (in cubic feet). Find the diameter of each stockpile in the table. Round your answers to the nearest foot.

Stockpile	Height (ft)	Diameter (ft)	Volume (ft^3)
A	10	?	68
B	15	?	230
C	20	?	545