

Name _____

8-8B Lesson Master**Questions on SPUR Objectives**

See Student Edition pages 574–577 for objectives.

SKILLS Objective E

In 1–14, find all real solutions. Be sure to check for extraneous solutions.

1. $\sqrt[3]{a} = 3$ _____

2. $\sqrt[4]{b} = 4$ _____

3. $8\sqrt[5]{x} = -4$ _____

4. $\sqrt[5]{w} = -3$ _____

5. $\frac{8}{5} \cdot \sqrt[6]{m} = 8$ _____

6. $\sqrt[4]{c} - 8 = 3\sqrt[4]{c}$ _____

7. $19 + \sqrt[5]{e-3} = 18$ _____

8. $25 - 16\sqrt[3]{f+1} = -7$ _____

9. $18 - \sqrt[4]{u} = 9$ _____

10. $5\sqrt[3]{y} - 2 = -\sqrt[3]{y}$ _____

11. $\sqrt[4]{r+3} = -5$ _____

12. $\sqrt{2m-6} = 18$ _____

13. $22 + \sqrt[7]{c+2} = 21$ _____

14. $8 + \sqrt[6]{2b} = 3$ _____

15. Find two points on the line $x = 2$ that are eight units away from the point $(4, 4)$.
- _____

16. Find two points on the line $x = -5$ that are ten units away from $(-3, 2)$.
- _____

17. Find two points on the line $y = 4$ that are five units away from the point $(2, 3)$.
- _____

18. Find two points on the line $x = -7$ that are eight units away from the point $(3, 0)$.
- _____

Name _____

8-8B

page 2

USES Objective I

19. Janet made a wooden-cube table lamp and veneered it with $\frac{1}{8}$ -inch-thick walnut. The finished cube has volume of about 3725 cubic inches. What was the approximate length of an edge of the cube before it was veneered? Round to the nearest hundredth.

20. The volume of a hemisphere is given by $V = \frac{2}{3}\pi r^3$.

a. Solve this formula for r .

b. A hemisphere with radius r has a volume of 1131 cubic millimeters. Find the length of the radius, to the nearest millimeter.

In 21–23, the equation $d = 1.82\sqrt[3]{r^2}$ approximates the average distance (in millions of miles) of a planet from the sun where r is the number of days in the planet's revolution. Determine the number of days in each planet's revolution.

21. Venus is an average distance of 67 million miles from the sun.

22. Mars is an average distance of 141 million miles from the sun.

23. Neptune is an average distance of 2790 million miles from the sun.

REVIEW Lesson 7-4, Objective G

24. Mr. Machado invested \$7500 in a 5-year CD (certificate of deposit) that paid 6.8% compounded quarterly. If he leaves the money alone, how much will the CD be worth when it matures?

25. Dana invested \$2600 in an account that pays 5.4% compounded daily (365 days a year). If she leaves the money alone, how much will be in the account after 3.5 years?

26. Nareg invested \$250 in a savings account that paid 4.5% interest compounded annually.

a. How much money was in the account after 3 years, if he left the money untouched?

b. Nareg wants to buy a snowboard that costs \$300. Will he have enough money in the account to purchase the snowboard if the account is untouched for 3.5 years?
