

DIRECTIONS: Simplify.

$$1. 81^{\frac{1}{2}} \quad 9$$

$$2. 27^{\frac{1}{3}} \quad 3$$

$$3. 49^{-\frac{1}{2}} \quad \frac{1}{7}$$

$$4. 32^{-\frac{1}{5}} \quad \frac{1}{2}$$

$$5. 4^{\frac{3}{2}} \quad 8$$

$$6. 27^{\frac{2}{3}} \quad 9$$

$$7. 16^{\frac{3}{4}} \quad 8$$

$$8. 25^{-\frac{3}{2}} \quad \frac{1}{125}$$

$$9. (-125)^{-\frac{1}{3}} \quad -\frac{1}{5}$$

$$10. (-32)^{-\frac{3}{5}} \quad -\frac{1}{8}$$

$$11. 4^{-0.5} \quad \frac{1}{2}$$

$$12. \left(\frac{4}{9}\right)^{-1.5} \quad \frac{27}{8}$$

$$13. -8^{\frac{2}{3}} \quad -4$$

$$14. -9^{\frac{3}{2}} \quad -27$$

$$15. (5^{\frac{1}{3}})^{-3} \quad \frac{1}{5}$$

$$16. (7^{-\frac{2}{3}})^3 \quad \frac{1}{49}$$

$$17. (16^{-5})^{\frac{1}{20}} \quad \frac{1}{2}$$

$$18. (27^4)^{\frac{-1}{12}} \quad \frac{1}{3}$$

$$19. (9^{\frac{1}{2}} + 16^{\frac{1}{2}})^2 \quad 49$$

$$20. (8^{\frac{2}{3}} - 8^{\frac{1}{3}})^3 \quad 8$$