1. Solve the equation $z^2 = 32$

2. Solve the equation $y^2 = \dfrac{25}{81}$

3. Evaluate $\sqrt{196}$

4. Evaluate $\sqrt[3]{-512}$

5. Solve the equation $x^3 = 1{,}728$

6. Solve the equation $c^3 = \dfrac{27}{1{,}000}$

7. A square postage stamp has an area of 1,180 mm². About how long is each side?

8. A company is making building blocks. Each building block is a cube and has volume $\dfrac{64}{343}$ ft³. How long is each side of the building blocks?

Simplify the following:

9. $\left(\dfrac{x^6}{5}\right)^4 =$

10. $\dfrac{3^8}{3^4}$

11. $(7^3)^9$

12. $(5x^3)(4x^2)$

13. $\left(\dfrac{g^2}{f^5}\right)^3$

14. $(4a^3)^3$

15. $\dfrac{15x^6y^7}{-3x^2y}$

16. $\dfrac{6^7}{6^{11}}$

17. $\dfrac{6n^6}{3n^6}$

18. $\left(\dfrac{x^3}{3y}\right)^4$

19. $(-8a^3b)(9ab^3)$

20. $(5m^2n^3)^3$