

Arithmetic Power Hour Quiz

1. The three sides of a triangle have ratio 2:3:4. Their total length (perimeter) is 72. How long is the shortest side?
2. A team had a win-to-loss ratio of 2 to 1. If it won 60 games, how many did it play?
3. Convert 0.07% to a decimal
4. Convert $\frac{3}{5}$ to a decimal
5. Simplify $\frac{5^{-1}}{2^{-1}}$
6. Which one is larger, $\frac{1}{4}$ or 0.25%? (Or are they equal?)
7. What is $(\frac{3}{8})^2$? What is $(\frac{3}{8})^{-2}$?
8. Evaluate: $(-3)^2$, $(-2)^3$, and -1^4

Quantitative comparison

9.

$$z > 1$$

$$\underline{\mathbf{A}}$$
$$z^5$$

$$\underline{\mathbf{B}}$$
$$z^6$$

10.

$$0 < z < 1$$

$$\underline{\mathbf{A}}$$
$$z^5$$

$$\underline{\mathbf{B}}$$
$$z^6$$

11.

$$z < -1$$

$$\underline{\mathbf{A}}$$
$$z^5$$

$$\underline{\mathbf{B}}$$
$$z^6$$

12.

$$-1 < z < 0$$

$$\underline{\mathbf{A}}$$
$$z^5$$

$$\underline{\mathbf{B}}$$
$$z^7$$

Answers

1. 16
2. 90
3. 0.000 7
4. 0.6
5. $\frac{2}{5}$
6. $\frac{1}{4}$
7. $\frac{9}{64}$; $\frac{64}{9}$
8. 9, -8, and -1
9. B
10. A
11. B
12. B