Proportions and Similar Figures

Directions: Answer each question. Use your answer to navigate through the maze. Show your work.

START
If \( ab = cd \), then the proportion is:

\[
\frac{a}{b} = \frac{c}{d}
\]

The ratio 24:36 simplified is:

\[
\frac{24}{36} = \frac{4}{6}
\]

\[
8:9
\]

\[
\frac{c}{2} = -\frac{1}{4}
\]

\[
\frac{1}{c + 2} = \frac{10}{5}
\]

1. If \( \frac{a}{b} = \frac{c}{d} \), then the proportion is:

\[
\frac{a}{b} = \frac{c}{d}
\]

2. The ratio 24:36 simplified is:

\[
\frac{24}{36} = \frac{4}{6}
\]

3. \( \frac{c}{2} = -\frac{1}{4} \)

4. \( \frac{1}{c + 2} = \frac{10}{5} \)

The similar figures have:

- Same shape but different size
- 2\( c = 1 \)
- 2\( c = 6 \)
- Equal
- Two squares are always similar.
- The ratio simplified is:

\[
\frac{24}{36} = \frac{4}{6}
\]

5. If \( \frac{3}{2} = \frac{c}{6} \), then \( 2c \) is:

\[
\frac{3}{2} = \frac{c}{6} \Rightarrow 2c = 18
\]

6. The corresponding angles of the similar figures are:

\[
\frac{a}{b} = \frac{c}{d}
\]

\[
a + d = c + d
\]

Different shape but same size

7. The ratio 0.3:1.2 simplified is:

\[
\frac{1}{4}
\]

8. If \( \frac{a}{b} = \frac{c}{d} \), then

\[
\frac{a}{b} = \frac{c}{d}
\]

9. The corresponding sides of the similar shapes are:

- Proportional
- Congruent

10. The ratio simplified is:

\[
\frac{24}{36} = \frac{4}{6}
\]

11. \( \frac{2c}{2} = \frac{1}{2} \)

12. \( \frac{ac}{bd} \)

13. \( \frac{a}{b} = \frac{c}{d} \)

Good Job! The End