

Chapter 8 Review

Math Maze

Start at Room 1 and work your way through the maze. If you reach a dead-end or a room that you have already visited, one of your answers is incorrect.

Room 1

The two shortest sides of a right triangle are 6 mm and 8 mm. How long is the third side?

If 5 mm, go to Room 2.
If 10 mm, go to Room 11.
If 14 mm, go to Room 6.
If $\sqrt{62}$ mm, go to Room 13.

Room 6

Can a triangle of sides 10 inches, 24 inches, and 26 inches be a right triangle?

If yes, go to Room 10.
If no, go to Room 3.

Room 11

Evaluate $(2 \times 10^3)(3 \times 10^2)$.

If 5×10^5 , go to Room 14.
If 6×10^5 , go to Room 8.
If 5×10^6 , go to Room 2.
If 6×10^6 , go to Room 10.

Room 2

Can a triangle of sides 10 inches, 15 inches, and 20 inches be a right triangle?

If yes, go to Room 14.
If no, go to Room 13.

Room 7

Evaluate $(5 \times 10^{-11})(2 \times 10^{12})$.

If 1, go to Room 13.
If 10, go to Room 14.
If 100, go to Room 15.
If 1000, go to Room 12.

Room 12

Can a triangle of sides 9 inches, 16 inches, and 25 inches be a right triangle?

If yes, go to Room 13.
If no, go to Room 5.

Room 3

Go to Room 6.

Room 8

Go to Room 12.

Room 13

Go to Room 9.

Room 4

You have found the exit.
Congratulations!

Room 9

$$5^0 = 0$$

If true, go to Room 3.
If false, go to Room 14.

Room 14

$$a^{-1} = \frac{1}{a}$$

If true, go to Room 6.
If false, go to Room 10.

Room 5

Simplify $\frac{2x^2y}{xy}$.

If $\frac{2}{x}$, go to Room 1.
If $2x$, go to Room 7.
If $\frac{x^2}{x}$, go to Room 11.

Room 10

I'm sorry, but you have made a mistake in one of your calculations.

Go back to Room 1 and check your work.

Room 15

Which number is in scientific notation, 3×10^{-15} or 50×10^{-33} ?

If 3×10^{-15} , go to Room 4.
If 50×10^{-33} , go to Room 12.

Answers are located on page 116.