

## Logarithmic Equations

### Nested Logs

$$1. \log_2(\log_2(x)) = 1$$

$$2. \ln(\ln(x)) = 1$$

$$3. \log_4(\log_4(2x)) = 1$$

$$4. \log_2(\log_3(x)) = 2$$

$$5. \log_2(\log_3(x)) = 1$$

$$6. \ln(\ln(x)) = 0$$

$$7. \log_2(\log_5(x)) = 1$$

$$8. \log_5(\log_3(x)) = 0$$

$$9. \log_2(\log_2(x)) = 2$$

$$10. \log_3(\log_2(x)) = 1$$

## Answers

### Logarithmic Equations

#### Nested Logs

$$1. x = 4$$

$$2. x = e^e$$

$$3. x = 128$$

$$4. x = 81$$

$$5. x = 9$$

$$6. x = e$$

$$7. x = 25$$

$$8. x = 3$$

$$9. x = 16$$

$$10. x = 8$$