

THE INVENTOR'S ESCAPE ROOM TEACHER GUIDE

Lock A: Evaluate the following expressions. Show all work.

- $8 \times 15 \div 5 - (5 + 9)$
- $(10 + 2 - 2) \times 6 - 1$
- $6\left(\frac{28}{7} + 14 \div 7\right) + 8$
- $(6 + 8) + 9 \cdot 7$
- $6(2 + 3) - 3(8 - 2)$

Lock B: Given each expression, choose the step that should be performed first.

- | | |
|---------------------------|---------------------------|
| 1. $4 + 2(3 \cdot 4) + 1$ | 2. $\frac{81}{27}(8 - 5)$ |
| a. $4 + 2$ | a. $\frac{81}{27}$ |
| b. $2 \cdot 3$ | b. $8 - 5$ |
| c. $3 \cdot 4$ | c. 81×8 |
| d. $4 + 1$ | d. 27×8 |

- | | |
|------------------------|--------------------------|
| 3. $10 + 6 \div 2 + 4$ | 4. $12 + 3 \times 5 - 7$ |
| a. $10 + 6$ | a. $12 - 7$ |
| b. $6 \div 2$ | b. $12 + 3$ |
| c. $2 + 4$ | c. $5 - 7$ |
| d. $10 + 4$ | d. 3×5 |

Lock C: Evaluate the following expressions. Show all work.

- $5 + 2 \cdot 7 - 6(-3)$
- $(-9) \cdot 4 + 3^2 - 12$
- $(-5)^2 \cdot 4 - 20 \div 10$
- $3(2 + (-7) \cdot 4) + 6$

Lock D: Choose all of the expressions below that are equal to 24.

- $\frac{3^3+9 \cdot 5}{1+2}$
- $(3^3 + 9) \cdot 5 \div 1 + 2$
- $6 - (3 \times 2) \times 4$
- $(6 - 3) \times 2 \times 4$
- $16 + 4 + 20 \div 5$
- $16 + 4 + (20 \div 5)$
- $16 + (4 + 20) \div 5$

Lock E: Evaluate the following expression. Show all work.

$$2 + 7 \cdot 8 - (3^2 + 6) - (-4)^3 - (2)^5 + \frac{30}{5}$$

Lock Results:

A: 202

B: CBBB

C: 10, 181, 808

D: ADEF

E: 81

Final Code for Online Escape Room:

2C4P3