



7.EE.B.4
7.EE.B.4a

Escape the Principal's Office with One-Step Equations

Digital Escape Room

A laptop screen displaying a math problem on a yellow sticky note. The problem is: "Bella earned 85 points on a test. She got 5 points for each correct matching question and 15 bonus points. How many matching questions did she get correct?" Below the problem are four multiple-choice options: A. $15c - 5 = 85$, B. $5(c + 15) = 85$, C. $5c + 15 = 85$, and D. $5c - 85 = 15$. To the right of the options are five numbered choices: 1. 20 correct, 2. 6 correct, 3. 18 correct, 4. 14 correct, and 5. 2 correct. In the bottom left corner of the laptop screen, there is a circular spinner with numbers 0 through 9 and various math-related icons like a graduation cap, pencil, apple, lightbulb, pencil, and ruler.

Standards
7.EE.B.4
7.EE.B.4a

7th Grade Math Skills
Solve word problems involving two-
step equations with variables in the
form of $px+q=r$ or $p(x+q)=r$

Fast Facts

 No prep, click & go! Optional pages to print

 Escape Time ~30-45 minutes

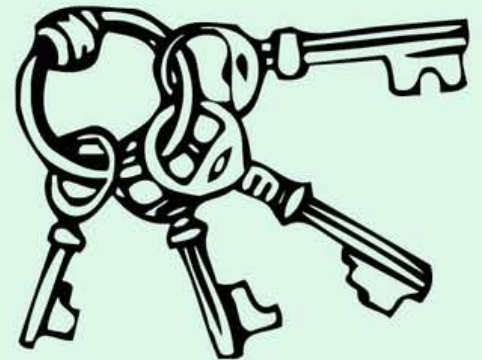
 Complete individually or in small groups

 Requires internet connected device

 Self-Checking

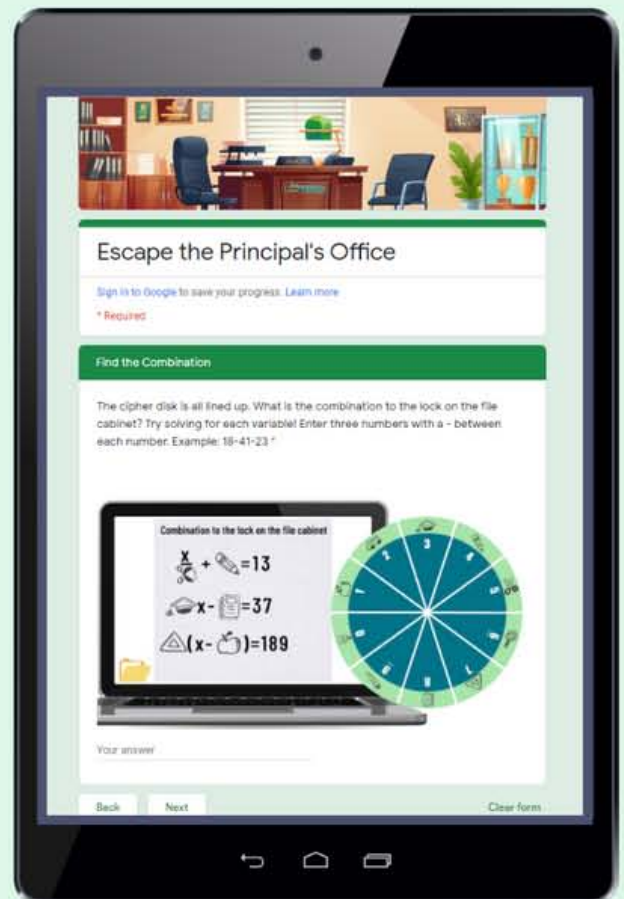
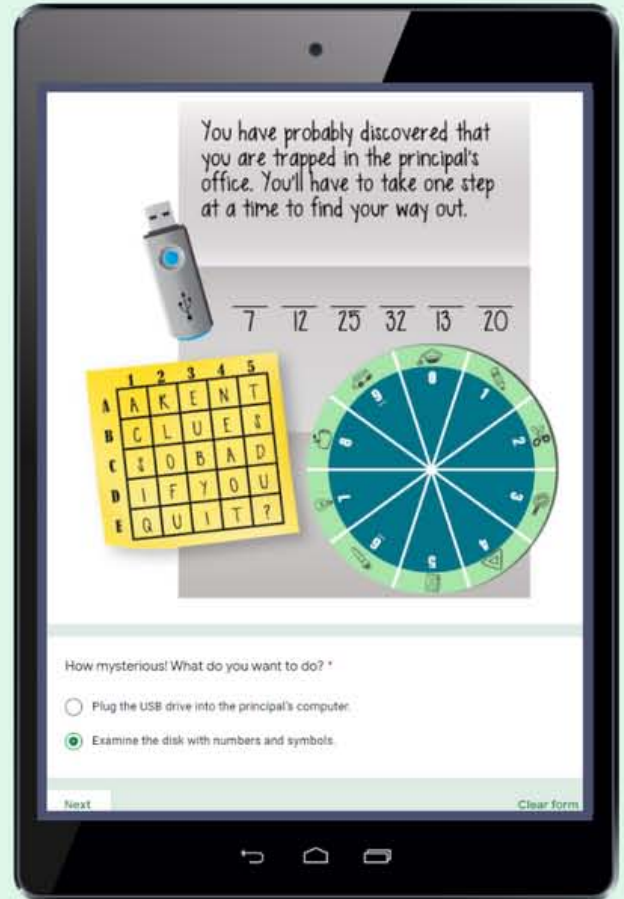
 Virtual or in-person

 Five Engaging Puzzles



How it Works:

- The escape room is automated by a Google Form™ (Google™ accounts are not required).
- Use the quick start link to click & go, or create a copy of the form to save to your drive (the teacher must have a Google Account to save a copy).
- Students only progress through the puzzles when correct answers are entered.
- The form provides hints if students enter incorrect answers.



Puzzle Preview

A teacher bought 8 cheese pizzas for a class party. Each pizza was \$2 off its regular price. The teacher spent \$88. What is the regular price of each pizza?

- A. $8c - 2 = 88$
- B. $8(c - 2) = 88$
- C. $8(c + 2) = 88$
- D. $8c + 2 = 88$
- E. $2c + 8 = 88$

5 classes started the year with an equal number of new computers each. Each class received 8 more computers in March. The classes have a total of 145 computers now. How many computers did each class receive?

- A. $5(x + 8) = 145$
 - B. $5(x - 8) = 145$
 - C. $5x + 8 = 145$
 - D. $5x - 8 = 140$
 - E. $8x + 5 = 145$
- 1. 27 computers
 - 2. 30 computers
 - 3. 21 computers
 - 4. 17 computers
 - 5. 37 computers

	1	2	3	4	5
A	A	R	E	N	T
B	C	L	U	E	S
C	S	O	B	A	D
D	I	F	Y	O	U
E	Q	U	I	T	?

Match a word problem with an equation and solution (5 problems)

Identifying Inverse Operations

USB DRIVE LOCKED!

Unlock this drive by choosing the operations you need to use to isolate the variable. Remember, **inverse operations** undo each other! The passcode is four symbols without any spaces. Example: /-x+



1. $3x + 5 = 11$

2. $\frac{x}{3} - 5 = 11$

Puzzle Preview

Find the combination by solving three equations.

Combination to the lock on the file cabinet

$$\frac{x}{6} + \text{pencil} = 13$$

$$\text{graduation cap} \cdot x - \text{calculator} = 37$$

$$\text{triangle} (x - \text{apple}) = 189$$



Three Error Analysis Problems

$$1. \quad \begin{array}{r} 7r - 6 = 78 \\ \quad +6 \quad +6 \end{array}$$

$$\begin{array}{r} 7r = 84 \\ \quad -7 \quad -7 \end{array}$$

$$r = 77$$

is the error?
ve been subtracted from

should have been divided by 7.

$$\frac{a}{6} - 2 = 3$$

$$6(t-5)=12$$

$$2(o+10)=70 \text{ (that's the letter o)}$$

$$19y+6=386$$

You have probably discovered that you are trapped in the principal's office. You'll have to take one step at a time to find your way out.

**Solving two-step equations
and using the solutions to
form a password.**

7 12 25 32 13 20

Optional Printable Pages

Recording Page

Cipher Disk

Name: _____

Escape the Principal's Office

Use the space below to work out the puzzles and escape

Unlock the Computer

	1	2	3	4	5
A	A	K	E	N	T
B	C	L	U	E	S
C	S	O	B	A	D
D	I	F	Y	O	U
E	Q	U	I	T	?

Inverse Operations Code: _____

File Cabinet Combination: _____

Error Analysis Code: _____

Variable Values (use the back of the paper for more space.)

r= _____

p= _____

h= _____

a= _____


t= _____

o= _____

n= _____

y= _____

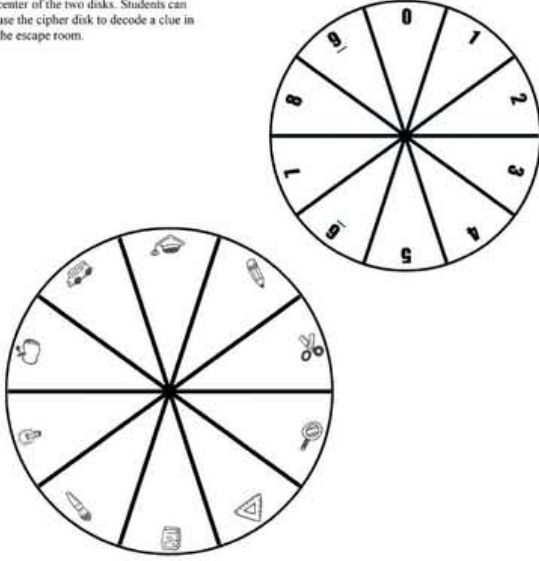
7 12 25 32 13 20



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Optional printable cipher disk

Directions:
Print one copy of this page on card stock for each group of students completing the escape room. Center the disk with the numbers on top of the disk with the symbols and insert a brass fastener (brad) through the center of the two disks. Students can use the cipher disk to decode a clue in the escape room.



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Success
Signs

ONE STEP
AT A TIME!

The Great
CLASSROOM
ESCAPE

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 Addition and Subtraction of Rational Numbers

**NO PREP!
 SELF-CHECKING!**

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 DIGITAL ESCAPE ROOM!**

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Ratios & Proportions

**7th Grade Math Standards
 DIGITAL ESCAPE ROOM!**

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 DIGITAL ESCAPE ROOM!**

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Linear Functions
 Slope-Intercept Form

**8TH GRADE CONTENT 8.F.A.2, 8.F.A.3, A.F.B.4
 DIGITAL ESCAPE ROOM!**



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