

ESCAPE ROOM ACTIVITY



ALL THINGS ALGEBRA®

MYSTERY NUMBERS

Subtract the answer to #3 from the answer to #5.

Find the last digit in the sum of the answers to #4 and #6.

Find the sum of the answers to #1 and #2, then divide by 9.



PRE-ALGEBRA ESCAPE

Directions: Solve each problem. Round all measures to the nearest tenth. The solution is coded using shapes. Use your answers to determine what shape represents. Record these numbers beneath the shapes in the grid below.

1 Find the volume.
4.5 m

2 Find the volume.
3 ft



PRE-ALGEBRA ESCAPE

Directions: Solve the problem at the top. Write your answer as a fraction in simplest form. Pass the numerator of your answer to the next problem. Then, pass your denominator to the next problem.

End of Year

PRE-ALGEBRA REVIEW



Two students, _____ are chosen at random to represent the team at a competition. What is the probability that both students are boys?

A bag contains 36 golf balls, numbered 1-36. If a ball is chosen at random, then a coin is tossed, what is the probability of getting a number greater than _____, then tails?

If the spinner below is spun twice, what is the probability of getting a number less than _____, then a number greater than _____?



PRE-ALGEBRA ESCAPE TEACHER DIRECTIONS

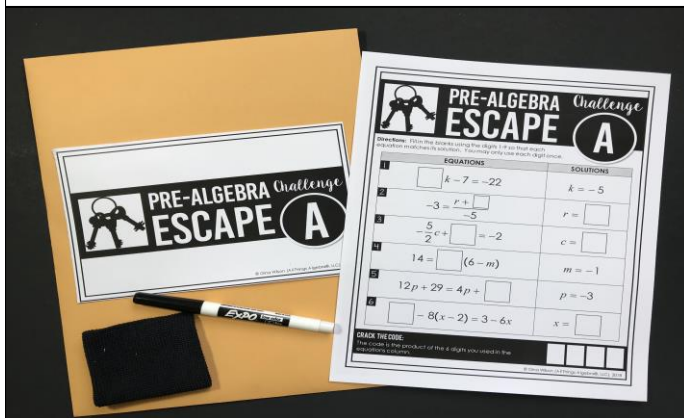
WHAT IS THIS? This Pre-Algebra Escape Activity is a fun and challenging way for students to review concepts taught throughout the year. This particular activity includes 8 challenge puzzles, each revealing a 3-digit, 4-digit, or 5-letter code. If students successfully crack each code, they will have "escaped the room" and earn a prize.

PREPARING THE ACTIVITY:

Place the challenge contents into manila envelopes. There are envelope labels provided if you wish to use them. I recommend laminating the challenge cards if possible so students can write on them with dry erase markers.

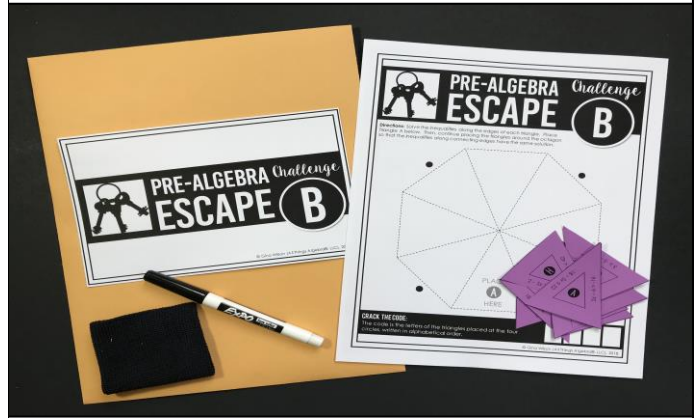
TOPICS AND CONTENTS FOR EACH CHALLENGE ENVELOPE:

CHALLENGE A: Equations



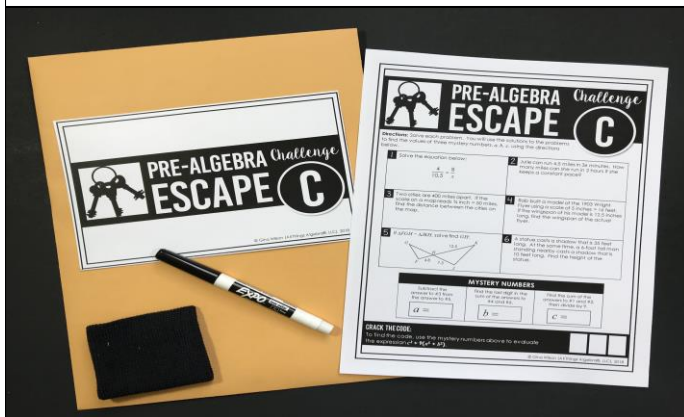
Contents: Challenge Card, Dry Erase Marker, Felt or Paper Towel to Erase

CHALLENGE B: Inequalities



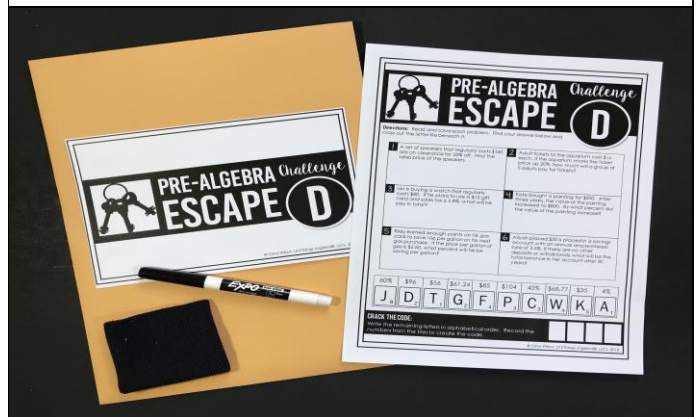
Contents: Challenge Card, Puzzle Pieces, Dry Erase Marker, Felt or Paper Towel to Erase

CHALLENGE C: Proportions



Contents: Challenge Card, Dry Erase Marker, Felt or Paper Towel to Erase

CHALLENGE D: Percents



Contents: Challenge Card, Dry Erase Marker, Felt or Paper Towel to Erase



PRE-ALGEBRA ESCAPE TEACHER DIRECTIONS

CHALLENGE E:

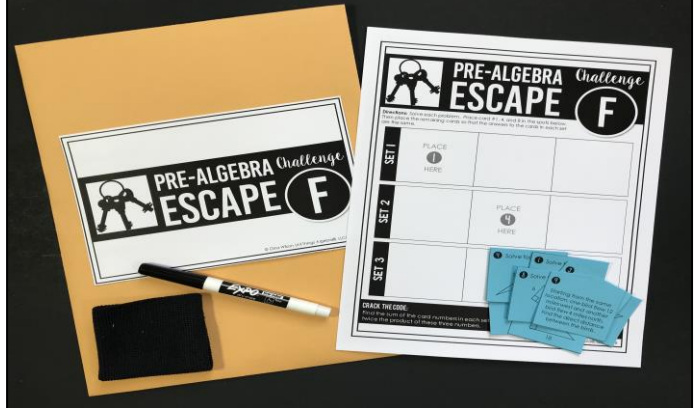
Graphing Linear Functions



Contents: Challenge Card, Ruler, Dry Erase Marker, Felt or Paper Towel to Erase

CHALLENGE F:

Pythagorean Theorem



Contents: Challenge Card, Puzzle Pieces, Dry Erase Marker, Felt or Paper Towel to Erase

CHALLENGE G:

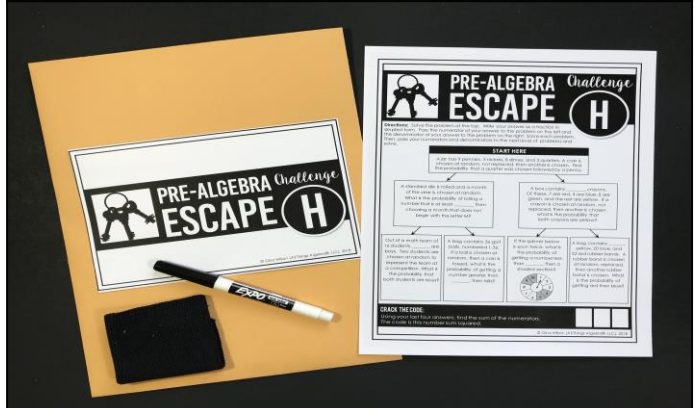
Volume & Surface Area



Contents: Challenge Card, Dry Erase Marker, Felt or Paper Towel to Erase, Decoder Wheel

CHALLENGE H:

Probability & Statistics



Contents: Challenge Card, Dry Erase Marker, Felt/Paper Towel to Erase

Additional Notes & Recommendations:

- Make a few envelopes for each challenge just in case more than one group is working on the same challenge at the same time.
- For challenge G, you will need metal fastener brads for the decoder wheel.
- As students bring challenge envelopes back to you, ensure all contents are there and everything has been erased from the challenge card.
- To cut down on some prep, you can have the students cut out the puzzle pieces and decoder wheel if you wish.



PRE-ALGEBRA ESCAPE

TEACHER DIRECTIONS

DIRECTIONS TO PLAY:

- I recommend solving each challenge yourself ahead of time just so you are familiar with the contents.
- Decide on which challenges you will use for the game. Each challenge can take up to 15 minutes and the challenges be completed in any order. All challenges are independent of each other so you can remove challenges to differentiate and cut down on time. Or, block off a few class periods and do them all!
- Break your students into groups. You can decide on group sizes that work best for your class. Students will need pencils, scrap paper, and calculators to work out the math problems.
- Give each group the half-sheet to record their codes as they solve the challenges. There is also an explanation of the activity on this paper and a place for students to write their team name.
- Decide on a prize for successfully completing all challenges. Some ideas include pencils, erasers, candy, a pizza party for the team, ice cream coupons, lunch with the principal, no homework passes, etc.
- Give each group a manila envelope containing a challenge. They work together to solve the challenge and crack the code. Remind them to work quietly so another group doesn't overhear a code! Encourage them to work together to solve the challenges faster.
- Ways to check student codes:

Method 1: Students can bring their paper up to you and you can check the code against your answer key.

Method 2: Students can use a device and check the codes digitally using this form:

<http://bit.ly/PreAlgEscape>

- Each time they crack a code, they come to you for their next challenge. Since the challenges are not linked together, it does not matter which order they solve them in. So they can take whatever challenge is available.
- Once they have successfully cracked all the codes, they get their prize! If some groups don't finish, that is OK! A typical commercial escape room has a 15-30% escape rate.