

Repeating Decimals to Fractions

Converting Repeating Decimals to Fractions

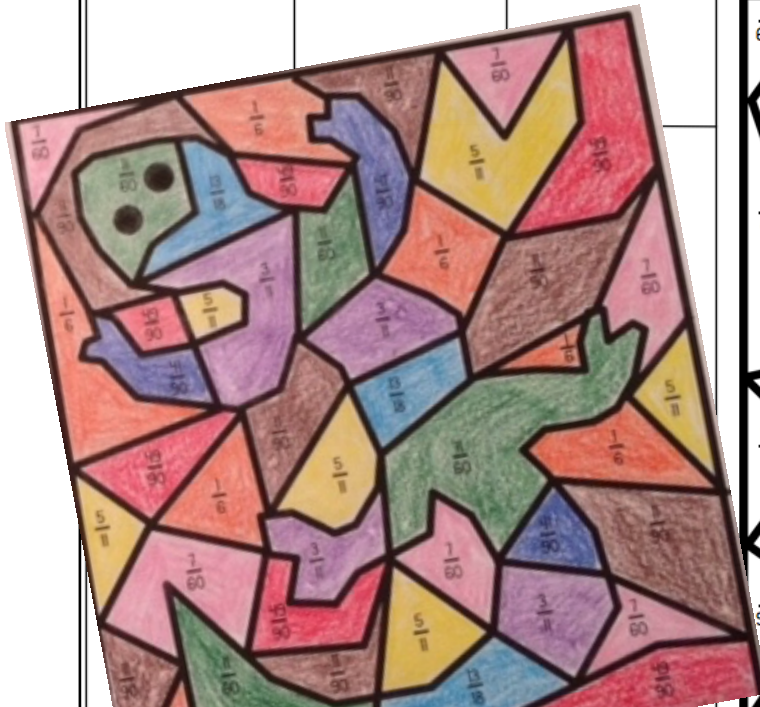
Convert the decimals to fractions. Simplify, if necessary.

- ① $0.5\bar{4}$ ② $0.1\bar{6}$ ③ $0.18\bar{3}$

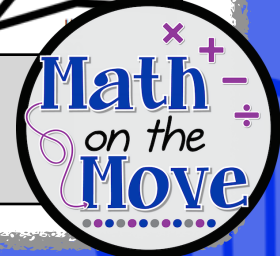
Name: _____

Use the key below to determine the color of each solution.

- | | | |
|--|----------|----------|
| ① Red (Color the solution to number 1 red) | ② Orange | ③ Green |
| ④ Purple | ⑤ Brown | ⑥ Yellow |
| ⑦ Light Blue | ⑧ Blue | ⑨ Pink |



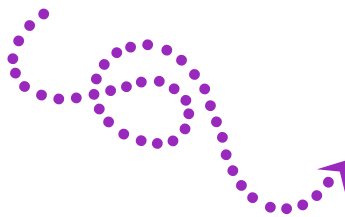
Coloring Activity



Possible Directions For Use:

1. Copy the coloring sheet.
2. Students convert the repeating decimals to fractions and simplify to lowest terms.
3. Each problem number has a color assigned to it. For example, #1 is red, so students color the fraction they get for #1 red.

Interested in guided notes to help students with this concept? Click on this link!



Repeating Decimals to Fractions

Repeating Decimals to Fractions	Changing Repeating Decimals to Fractions	Problem #1
Convert the decimals to fractions. #1 0.8	Change $0.\overline{2}$ to a fraction in simplest form. Question: How many digits are repeating: _____ Step 1: Let x represent the repeating decimal. $x = \frac{\quad}{\quad}$ <small>Hint: Write out several extra repeating digits.</small> Step 2: Multiply both sides of the equation by 10, 100, 1000, etc. (do for 1 repeating digit, 100 for a repeating digits, etc.) $\frac{\quad}{\quad} \times = \frac{\quad}{\quad}$ $-\frac{\quad}{\quad}$ $\frac{\quad}{\quad} \times = \frac{\quad}{\quad}$ Step 3: Bring down original equation and subtract both sides. <small>Hint: Line up decimal points when subtracting.</small> Step 4: Solve equation for x . $\frac{\quad}{\quad} \times = \frac{\quad}{\quad}$ $x = \frac{\quad}{\quad}$ Step 5: Simplify the fraction, if necessary.	Problem #1 repeating: _____ decimal: _____ Step 1: Write out several extra repeating digits. Step 2: Multiply both sides of the equation by 10, 100, 1000, etc. (do for 1 repeating digit, etc.) Step 3: Bring down original equation and subtract both sides. <small>Hint: Line up decimal points when subtracting.</small> Step 4: Solve equation for x . Step 5: Simplify the fraction, if necessary.

Interactive Notes + Worksheet

Math on the Move

Converting Repeating Decimals to Fractions

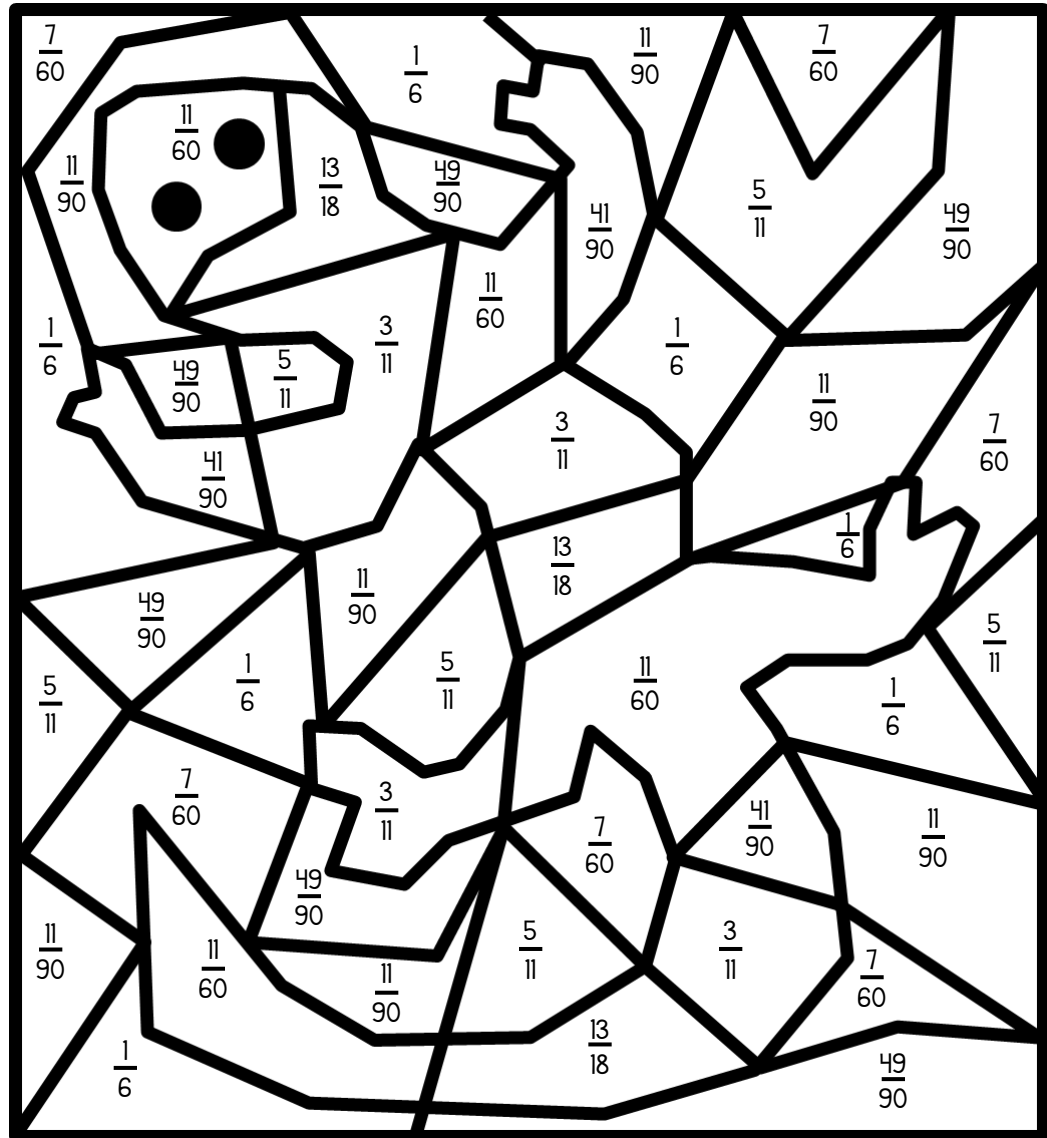
Convert the decimals to fractions. Simplify, if necessary.

1 $0.5\overline{4}$	2 $0.1\overline{6}$	3 $0.18\overline{3}$
4 $0.\overline{27}$	5 $0.1\overline{2}$	6 $0.\overline{45}$
7 $0.7\overline{2}$	8 $0.4\overline{5}$	9 $0.11\overline{6}$

Name: _____

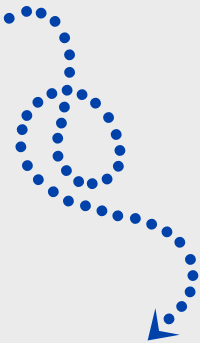
Use the key below to determine the color of each solution.

1 Red <i>(Color the solution to number 1 red)</i>	2 Orange	3 Green
4 Purple	5 Brown	6 Yellow
7 Light Blue	8 Blue	9 Pink



Need more Resources?

Click on the links below!



Estimating Square Roots on a Number Line

Task Card Activity

Math on the Move

Approximating Square Roots

Interactive Notes + Worksheet

Math on the Move

Rational and Irrational Numbers

Activities for Centers!

Math on the Move

Real-world Problems with Irrational Numbers

Worksheet + Answer Key

Math on the Move

Thank You!!

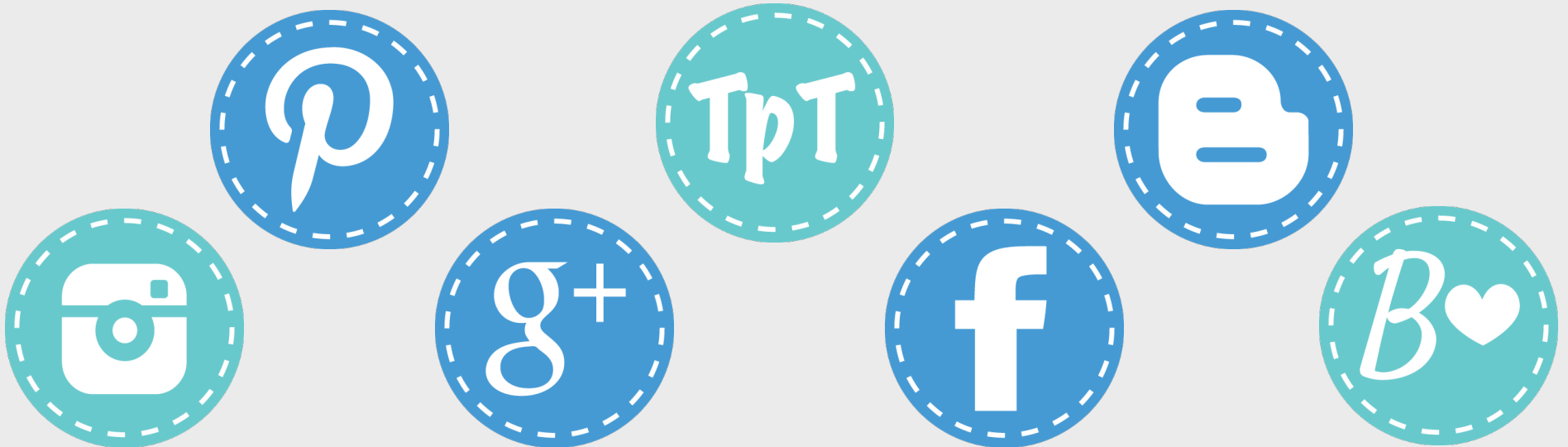
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mathonthemove@gmail.com

Thank you!!

