Week of April 6-10, 2020
Mrs. Epperson

You may use your math folder to help you. You have to complete 1 worksheet, but may complete all 3. I am available at nichole.epperson@oakland5.org or 708-517-0534 for any questions. You may call or text.

All worksheets have the appropriate grade level/subject at the top.

Class	Choice 1	Choice 2	Choice 3 (Enrichment)
8th grade Algebra	1-1	1-2	1-3

Epperson - Math

8- Algebra

Name:

PRACTICE TUTORIAL

1-1 Additional Practice

Week of 4/6-4/10

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Leveled Practice **In 1–4, write the decimal as a fraction or mixed number.**

1. Write $0.\overline{2}$ as a fraction.

Let $x =$.

$10x =$

$10x - x =$ $\quad -$

$9x =$

$x =$

So $0.\overline{2}$ is equal to .

2. Write 1.888... as a mixed number.

Let $x =$.

$10x =$

$10x - x =$ $\quad -$

$9x =$

$x =$

So 1.888... is equal to .

3. Write $0.4\overline{6}$ as a fraction.

Let $x =$.

$10x =$

$100x =$

$100x - 10x =$ $\quad -$

$90x =$

$x =$

So $0.4\overline{6}$ is equal to .

4. Write $0.\overline{12}$ as a fraction.

Let $x =$.

$100x =$

$100x - x =$ $\quad -$

$99x =$

$x =$

So $0.\overline{12}$ is equal to .

5. Look for Relationships Brianna asked 45 students if they would vote for her to be student council president. She used her calculator to compare the number of students who said yes with the total number of students. Her calculator showed the result as 0.6222....

a. Write this number as a fraction.

b. How many students said they would vote for Brianna?

6. Write $3.0\overline{1}$ as a mixed number.

7. Write $0.\overline{7}$ as a fraction.

8. **Higher Order Thinking** A reporter determines a baseball player's batting average, which is a ratio of number of hits to number of times at bats. The result is shown on a calculator as 0.2121....

   a. Write this repeating decimal as a fraction.

   b. How many hits would the player be expected to get in 200 at bats? Explain.

9. Write $0.\overline{32}$ as a fraction.

10. Write $2.\overline{5}$ as a mixed number.

Assessment Practice

11. Choose the repeating decimal that is equal to the fraction on the left.

	0.24	0.36	0.24	0.36
$\frac{33}{90}$	☐	☐	☐	☐
$\frac{24}{99}$	☐	☐	☐	☐
$\frac{36}{99}$	☐	☐	☐	☐
$\frac{22}{90}$	☐	☐	☐	☐

12. What fraction is equivalent to $0.\overline{6}$?

Epperson - Math

8- Algebra

Name:

PRACTICE TUTORIAL

1-2 Additional Practice

Week of 4/6-4/10

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1. Is 8.141141114... a rational or irrational number? Explain.

2. Is $\sqrt{72}$ rational or irrational? Explain.

3. Which numbers are rational?

$\sqrt{81}$, $\sqrt{50}$, -12, 0, $\frac{12}{5}$, $6.\overline{54}$

4. Which numbers are irrational?

11, $\sqrt{15}$, -14, $\frac{5}{7}$, $\frac{9}{4}$, $0.151155111555...$

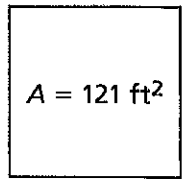
5. Richie says that 2.141441444... is a rational number. Elsa disagrees.

a. Who is correct?

b. What is the likely cause of the error?

8-Algebra Epperson - Math

6. **Reasoning** Write the side length of the square as a square root. Is the side length a rational number? Explain.



7. Keisha writes the following list of numbers.

$-9,\ \sqrt{8},\ 3.0,\ \frac{2}{5},\ 2.4\overline{2},\ \pi$

a. Which numbers are rational?

b. Which numbers are irrational?

8. **Higher Order Thinking** You are given the expressions $\sqrt{60+n}$ and $\sqrt{2n+28}$. What is tthe smallest value of n that will make each number rational?

Assessment Practice

9. Which numbers are rational?

I. 3.222222...

II. 0.112123123412345...

III. 1.589

Ⓐ I only

Ⓑ II only

Ⓒ III only

Ⓓ I and III

Ⓔ II and III

Ⓕ None of the above

10. Classify the following numbers as rational or irrational.

$\frac{2}{3}$ 3.1415926535... 0 $\sqrt{1}$ $7.\overline{4}$ 15 $\sqrt{3}$

Rational Rational

Epperson - Math

Name:

PRACTICE TUTORIAL

1-3 Additional Practice

Week of 4/6-4/10

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Leveled Practice **In 1 and 2, find the rational approximation.**

1. Approximate using perfect squares.

$$< 78 <$$

$$< \sqrt{78} <$$

$$< \sqrt{78} <$$

So $\sqrt{78}$ is between and .

2. Find the rational approximation of $\sqrt{37}$.

a. Approximate using perfect squares.

$$< 37 <$$

$$< \sqrt{37} <$$

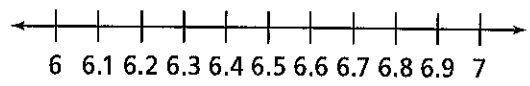
$$< \sqrt{37} <$$

b. **Model with Math** Locate and plot $\sqrt{37}$ on a number line. Find a better approximation using decimals.

$6.0 \times 6.0 =$

$6.1 \times 6.1 =$

$\sqrt{37}$ is closer to .



3. **Reasoning** Compare $-\sqrt{7}$ and $-3.12345\ldots$. Justify your reasoning.

4. Does $\frac{22}{7}$, -3, $\sqrt{17}$, $\frac{16}{5}$, or -4.5 come first when the numbers are listed from least to greatest? Explain.

5. List the numbers in order from least to greatest.

$\sqrt{5}$, 3.7, $\frac{1}{2}$, -4, $-\frac{9}{4}$

6. Compare 6.51326... and $\sqrt{39}$. Show your work.

7. Ross is comparing $\sqrt{11}$ and $5.\overline{4}$. He says that $\sqrt{11} > 5.\overline{4}$ because $\sqrt{11} = 5.5$.

   a. What is the correct comparison?

   b. **Critique Reasoning** What mistake did Ross likely make?

8. **Higher Order Thinking** If $x = 5$, $y = 6$, and $z = 2$, is $\sqrt{x^2 + y^2 + z^2 + 50}$ rational or irrational? Explain.

Assessment Practice

9. Which list shows the numbers in order from least to greatest?

   Ⓐ $\sqrt{32}$, 5.2, $4\frac{2}{3}$, $\sqrt{17}$

   Ⓑ $\sqrt{17}$, $4\frac{2}{3}$, 5.2, $\sqrt{32}$

   Ⓒ $4\frac{2}{3}$, $\sqrt{32}$, $\sqrt{17}$, 5.2

   Ⓓ 5.2, $\sqrt{17}$, $\sqrt{32}$, $4\frac{2}{3}$

10. The area of a square picture frame is 55 square inches. Find the length of one side of the frame. Explain.

    PART A

    To the nearest whole inch

    PART B

    To the nearest tenth of an inch