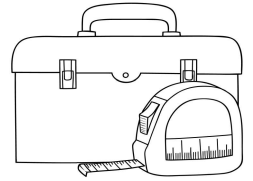


FRACTIONS AND DECIMALS



Jackson and Roy each checked out at the lumber store with a piece of plywood for an upcoming project. Jackson's plywood was $\frac{3}{5}$ inches thick while Roy's plywood was 0.7 inches thick. Who purchased the thicker piece of plywood, and how do you know?

Whether comparing, classifying, or ordering values, it is often helpful to convert different forms of numbers.

CONVERTING FRACTIONS TO DECIMALS

- To convert a fraction to a decimal, divide the _____ by the _____.

$$\frac{N}{D} \rightarrow D \overline{)N}$$

TYPES OF DECIMALS

- A decimal that ends, or terminates, is known as a _____.
- A decimal with a repeating block is known as a _____.

Convert each fraction into its equivalent decimal form. Then, state what type of decimal it is.

1. $\frac{3}{8}$	2. $\frac{1}{16}$	3. $\frac{5}{6}$
4. $\frac{4}{9}$	5. $\frac{13}{4}$	6. $\frac{7}{9}$

CONVERTING DECIMALS TO FRACTIONS

- To convert a decimal to a fraction, put the decimal over _____ and multiply the numerator and denominator by _____ until there is no longer a decimal in the numerator. Then, _____ your fraction.

Convert each decimal into its equivalent fraction form.

7. 0.35	8. 0.275	9. 8.12
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Use the following steps to convert repeating decimals to fractions in 10-12.

CONVERTING REPEATING DECIMALS

- Set $x =$ _____ decimal.
- Let $n =$ the number of recurring digits.
- Multiply both sides of the equation by _____.
 - _____ the two equations.
 - Solve for x and simplify.

10.

$0.\overline{888}$

11.

$0.\overline{030303}$

12.

$0.\overline{1818}$

13. Trish entered a problem on her calculator that gave her this result on the screen: "0.1894528...". Would this decimal be considered a repeating decimal? Why or why not?