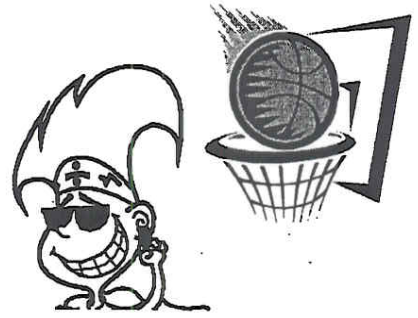


LESSON 3

Dividing Decimals



PART 1

Put in the decimal points. Add 3 zeros. Divide until there is no remainder.

a.
$$\begin{array}{r} .75 \\ 8 \overline{) 6.000} \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

b.
$$4 \overline{) 11}$$

c.
$$8 \overline{) 3}$$

d.
$$5 \overline{) 13}$$



Here's how you work it!

1 Put the decimal point after the whole number.

$$4 \overline{) 9.}$$

2 Put the decimal in the answer right above the other decimal point.

$$4 \overline{) 9.} $$

3 Add three zeros.

$$4 \overline{) 9.000}$$

4 Divide until there is no remainder.

$$\begin{array}{r} 2.25 \\ 4 \overline{) 9.000} \\ \underline{-8} \\ 10 \\ \underline{-8} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$



PART 2

Write each fraction as a division problem. Then divide.

a. $\frac{5}{8}$
$$\begin{array}{r} .625 \\ 8 \overline{) 5.000} \\ \underline{-48} \\ 20 \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

b. $\frac{14}{4}$

c. $\frac{1}{8}$

PART 3

Divide each fraction to find the decimal number it equals.

a. $\frac{7}{8}$

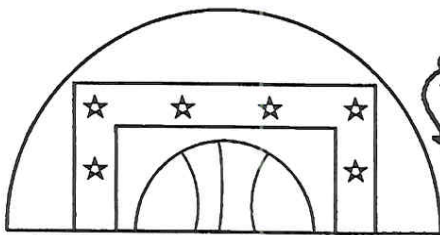
b. $\frac{9}{12}$

c. $\frac{30}{12}$

d. $\frac{57}{100}$

e. $\frac{27}{4}$

f. $\frac{13}{8}$



Give it your best shot

1 In gymnastics, a gymnast's score is decided by combining the compulsory marks with the optional marks. If a gymnast scored 37.25 on her compulsory score and 35.60 on her optional, what would be her total score?

2 Kareem Abdul-Jabbar played basketball for 20 years. He scored 38,387 points. He averaged twenty-four and six tenths points per game. Write the decimal number that shows how many points per game Kareem Abdul-Jabbar scored.



Dividing Fractions to Get Decimal Numbers

First, tip the fraction clockwise and complete the division sign.

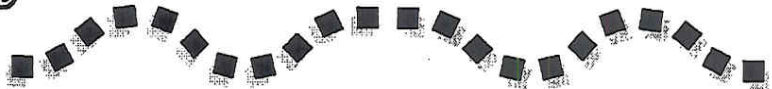
$$\frac{7}{8} \quad \begin{array}{c} 7 \\ \curvearrowright \\ 8 \end{array}$$

$$8 \overline{)7}$$

Put in the decimal points and add 3 zeros. Then divide.

$$8 \overline{)7.000}$$

$$\begin{array}{r} .875 \\ 8 \overline{)7.000} \\ \underline{-64} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$



LESSON 4

Changing Fractions to Decimals and Decimals to Fractions



PART 1

Write each fraction as a decimal number.

a. $\frac{14}{100} = .14$

b. $\frac{3}{10} =$

c. $\frac{7}{1000} =$

d. $\frac{9}{10} =$



Fractions as Decimals

You can write fractions and decimals that are equal.

$$\frac{7}{10} = .7$$

$$\frac{3}{100} = .03$$

$$\frac{14}{1000} = .014$$



PART 2

Write each fraction as a decimal number.

a. $5\frac{7}{100} = 5.07$

b. $12\frac{6}{10} =$

c. $\frac{16}{1000} =$

d. $2\frac{9}{1000} =$

e. $18\frac{5}{10} =$

f. $6\frac{3}{100} =$



More Fractions as Decimals

Copy the whole number. Put in a decimal point. Then write the decimal for the fraction.

$$3\frac{7}{100} = 3.07$$

$$3\frac{6}{10} = 3.6$$

$$2\frac{437}{1000} = 2.437$$



PART 3

Write the decimal number for each fraction.

a. $\frac{245}{100} = 2.45$

b. $\frac{46}{10} =$

c. $\frac{2575}{1000} =$

d. $\frac{315}{100} =$

e. $\frac{12}{10} =$

f. $\frac{5050}{100} =$



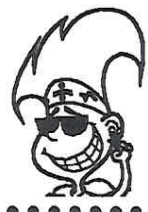
Writing Fractions Greater than 1 as Decimal Numbers

You can also write fractions that are greater than 1 as decimal numbers.

$\frac{14}{10} = 1.4$

$\frac{135}{100} = 1.35$

$\frac{1542}{1000} = 1.542$



PART 4

Write the decimal numbers for these mixed numbers. First copy the whole number. Then divide to figure out the fraction.

a. $5 \frac{3}{4} = 5.75$

b. $38 \frac{7}{10} =$

$5 + .75$

$$\begin{array}{r} .75 \\ 4 \overline{) 3.00} \\ \underline{- 28} \\ 20 \\ \underline{- 20} \\ 0 \end{array}$$

c. $2 \frac{5}{8} =$

d. $15 \frac{16}{100} =$