

Name _____



Round Decimals

Write the place value of the underlined digit. Round each number to the place of the underlined digit.

1. 0.782

tenths

0.8

2. 4.735 ↑

5.000

ones

3. 2.348 ↓

2.30

tenths

4. 0.56 ↑

0.51

hundredths

5. 15.186 ↑

15.2

tenths

6. 8.465

8.47

hundredths

Name the place value to which each number was rounded.

7. 0.546 to 0.55

hundredths

8. 4.805 to 4.8

tenths

9. 6.493 to 6

ones

10. 1.974 to 2.0

tenths

11. 7.709 to 8

ones

12. 14.637 to 15

ones

Round 7.954 to the place named.

13. tenths

7.954 ↑

8.0

14. hundredths

7.954 ↓

7.95

15. ones

7.954 ↑ = 8

Round 18.194 to the place named.

16. tenths

18.194 ↑

18.2

17. hundredths

18.194 ↓

18.19

18. ones

18.194 ↓ 18

Problem Solving

19. The population density of Montana is 6.699 people per square mile. What is the population density per square mile of Montana rounded to the nearest whole number?

6.699 ↑

7 people per square mile

20. Alex's batting average is 0.346. What is his batting average rounded to the nearest hundredth?

0.35

0.346 ↑

LESSON
21
**Problem Solving • Multiplication
and Division**
OBJECTIVE Use the strategy *solve a simpler problem* to solve problems.

In Brett's town, there are 128 baseball players on 8 different teams. Each team has an equal number of players. How many players are on each team?

Read the Problem
What do I need to find?

I need to find how many players are on each team in Brett's town.

What information do I need to use?

There are 8 teams with a total of 128 players.

How will I use the information?

I can divide the total number of players by the number of teams. I can use a simpler problem to divide.

Solve the Problem

- First, I use the total number of players.

$$\underline{128 \text{ players}}$$

- To find the number of players on each team, I will need to solve this problem.

$$128 \div 8 = \blacksquare$$

- To find the quotient, I break 128 into two simpler numbers that are easier to divide.

$$\begin{aligned} 128 \div 8 &= (80 + \underline{48}) \div 8 \\ &= (\underline{80} \div 8) + (\underline{48} \div 8) \\ &= \underline{10} + \underline{6} \\ &= \underline{16} \end{aligned}$$

So, there are 16 players on each team.

1. Susan makes clay pots. She sells 125 pots per month to 5 stores. Each store buys the same number of pots. How many pots does each store buy?

$$\begin{aligned} 125 \div 5 &= (100 + \underline{25}) \div 5 \\ &= (100 \div 5) + (\underline{25} \div 5) \\ &= \underline{20} + \underline{5} \\ &= \underline{25} \\ &\underline{25 \text{ pots}} \end{aligned}$$

2. Lou grows 112 rosemary plants. He ships an equal number of plants to customers in 8 states. How many rosemary plants does he ship to each customer?

$$\begin{aligned} 112 \div 8 &= (80 + \underline{32}) \div 8 \\ &= (\underline{80} \div 8) + (\underline{32} \div 8) \\ &= \underline{10} + \underline{4} \\ &= \underline{14} \\ &\underline{14 \text{ plants}} \end{aligned}$$

Problem Solving • Multiplication and Division

Solve the problems below. Show your work.

1. Dani is making punch for a family picnic. She adds 16 fluid ounces of orange juice, 16 fluid ounces of lemon juice, and 8 fluid ounces of lime juice to 64 fluid ounces of water. How many 8-ounce glasses of punch can she fill?

$$\begin{aligned} 104 \div 8 &= (40 + 64) \div 8 \\ &= (40 \div 8) + (64 \div 8) \\ &= 5 + 8, \text{ or } 13 \end{aligned}$$

$$16 + 16 + 8 + 64 = 104 \text{ fluid ounces}$$

13 glasses

2. Ryan has nine 14-ounce bags of popcorn to repackage and sell at the school fair. A small bag holds 3 ounces. How many small bags can he make?

$$\begin{array}{r} 3 \\ \times 14 \\ \hline 1260z \end{array}$$

$$\begin{array}{r} 42 \\ 3 \overline{)126} \\ \underline{-12} \\ 06 \\ \underline{-6} \\ 0 \end{array}$$

42 small bags

3. Bianca is making scarves to sell. She has 33 pieces of blue fabric, 37 pieces of green fabric, and 41 pieces of red fabric. Suppose Bianca uses 3 pieces of fabric to make 1 scarf. How many scarves can she make?

$$\begin{array}{r} 1 \\ 33 \\ + 37 \\ + 41 \\ \hline 111 \end{array}$$

111 pieces of fabric

$$\begin{array}{r} 37 \\ 3 \overline{)111} \\ \underline{-9} \\ 21 \\ \underline{-21} \\ 0 \end{array}$$

37 scarves

4. Jasmine has 8 packs of candle wax to make scented candles. Each pack contains 14 ounces of wax. Jasmine uses 7 ounces of wax to make one candle. How many candles can she make?

$$\begin{array}{r} 3 \\ \times 14 \\ \hline 1120z \end{array}$$

$$\begin{array}{r} 16 \\ 7 \overline{)112} \\ \underline{-7} \\ 42 \\ \underline{-42} \\ 0 \end{array}$$

16 candles

5. Maurice puts 130 trading cards in protector sheets. He fills 7 sheets and puts the remaining 4 cards in an eighth sheet. Each of the filled sheets has the same number of cards. How many cards are in each filled sheet?

$$\begin{array}{r} 180 \\ - 4 \\ \hline 126 \end{array}$$

$$\begin{array}{r} 18 \\ 7 \overline{)126} \\ \underline{-7} \\ 56 \\ \underline{-56} \\ 0 \end{array}$$

18 cards

Place the First Digit

Divide.

1. $4 \overline{)388}$

$$\begin{array}{r} 97 \\ 4 \overline{)388} \\ \underline{-36} \\ 28 \\ \underline{-28} \\ 0 \end{array}$$

97

2. $4 \overline{)457}$

$$\begin{array}{r} 114 \text{ R}1 \\ 4 \downarrow \\ \underline{-4} \\ 05 \\ 4 \downarrow \\ \underline{-4} \\ 17 \\ 16 \downarrow \\ \underline{-16} \\ 1 \end{array}$$

114 R1

3. $8 \overline{)712}$

$$\begin{array}{r} 89 \\ 8 \downarrow \\ \underline{-64} \\ 72 \\ 72 \downarrow \\ \underline{-72} \\ 0 \end{array}$$

89

4. $9 \overline{)204}$

$$\begin{array}{r} 22 \\ 18 \downarrow \\ \underline{-18} \\ 24 \\ 18 \downarrow \\ \underline{-18} \\ 6 \end{array}$$

22 R6

5. $2,117 \div 3$

$$\begin{array}{r} 705 \\ 3 \overline{)2117} \\ \underline{-21} \\ 01 \\ 0 \downarrow \\ \underline{-0} \\ 17 \\ 15 \downarrow \\ \underline{-15} \\ 2 \end{array}$$

705 R2

6. $520 \div 8$

$$\begin{array}{r} 65 \\ 8 \overline{)520} \\ \underline{-48} \\ 40 \\ 40 \downarrow \\ \underline{-40} \\ 0 \end{array}$$

65

7. $1,812 \div 4$

$$\begin{array}{r} 453 \\ 4 \overline{)1812} \\ \underline{-16} \\ 21 \\ 20 \downarrow \\ \underline{-20} \\ 12 \\ 12 \downarrow \\ \underline{-12} \\ 0 \end{array}$$

453

8. $3,476 \div 6$

$$\begin{array}{r} 579 \text{ R}2 \\ 6 \overline{)3476} \\ \underline{-30} \\ 47 \\ 42 \downarrow \\ \underline{-42} \\ 56 \\ 54 \downarrow \\ \underline{-54} \\ 2 \end{array}$$

579 R2

Problem Solving

9. The school theater department made \$2,142 on ticket sales for the three nights of their play. The department sold the same number of tickets each night and each ticket cost \$7. How many tickets did the theater department sell each night?

$$\begin{array}{r} 306 \\ 7 \overline{)2142} \\ \underline{-21} \\ 042 \\ 42 \downarrow \\ \underline{-42} \\ 0 \end{array}$$

306 tickets

10. Andreus made \$625 mowing yards. He worked for 5 consecutive days and earned the same amount of money each day. How much money did Andreus earn per day?

$$\begin{array}{r} 125 \\ 5 \overline{)625} \\ \underline{-5} \\ 12 \\ 10 \downarrow \\ \underline{-10} \\ 25 \\ 25 \downarrow \\ \underline{-25} \\ 0 \end{array}$$

\$125