

Practice 2

Reminder

- Equivalent fractions describe the same amount or the same area, but they are expressed in a different number of pieces or parts.
- Equivalent fractions are equal to each other.

$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16}$$
- You can create equivalent fractions by multiplying or dividing the numerator and the denominator by the same number.

$$\frac{3 \times 2}{4 \times 2} = \frac{6}{8} \quad \text{so} \quad \frac{3}{4} = \frac{6}{8} \quad \frac{12 \div 3}{24 \div 3} = \frac{4}{8} \quad \text{so} \quad \frac{12}{24} = \frac{4}{8}$$

Directions: Write the equivalent fraction for each given fraction below. The first two are done for you.

1. $\frac{1}{2} = \frac{2}{4}$

2. $\frac{4}{6} = \frac{2}{3}$

3. $\frac{1}{8} = \frac{2}{16}$

4. $\frac{3}{4} = \frac{6}{8}$

5. $\frac{4}{5} = \frac{8}{10}$

6. $\frac{3}{5} = \frac{6}{10}$

7. $\frac{3}{9} = \frac{1}{3}$

8. $\frac{9}{12} = \frac{3}{4}$

9. $\frac{3}{8} = \frac{6}{16}$

10. $\frac{6}{12} = \frac{1}{2}$

11. $\frac{10}{12} = \frac{5}{6}$

12. $\frac{5}{10} = \frac{1}{2}$

13. $\frac{4}{4} = \frac{1}{1}$

14. $\frac{7}{8} = \frac{14}{16}$

15. $\frac{5}{9} = \frac{10}{18}$

16. $\frac{2}{2} = \frac{1}{1}$

17. $\frac{3}{3} = \frac{1}{1}$

18. $\frac{4}{4} = \frac{1}{1}$

Directions: Multiply to compute these equivalent fractions. The first one is done for you.

19. $\frac{2}{7} \times \frac{2}{2} = \frac{4}{14}$

20. $\frac{4}{5} \times \frac{4}{4} =$

21. $\frac{3}{12} \times \frac{2}{2} =$

22. $\frac{1}{3} \times \frac{3}{3} =$

23. $\frac{1}{4} \times \frac{2}{2} =$

24. $\frac{2}{6} \times \frac{4}{4} =$

25. $\frac{4}{5} \times \frac{3}{3} =$

26. $\frac{1}{3} \times \frac{8}{8} =$

27. $\frac{4}{9} \times \frac{2}{2} =$

Practice 3



Reminder

- Fractions are in their lowest terms when no factor greater than 1 will divide evenly into both the numerator and the denominator.

Examples: $\frac{2}{5}$, $\frac{7}{10}$, $\frac{2}{7}$, $\frac{3}{8}$

- All fractions with 1 as the numerator and all fractions where the numerator is 1 less than the denominator are in lowest terms.

Examples: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{3}{4}$, $\frac{7}{8}$

- To reduce fractions, find the **greatest common factor** (GCF). Divide the numerator and the denominator by the greatest common factor. Reduce $\frac{12}{16}$, GCF of 12 and 16 is 4.

factors of 12: 1, 2, 3, 4, 6, 12

factors of 16: 1, 2, 4, 8, 16

$$\frac{12 \div 4}{16 \div 4} = \frac{3}{4}$$

$$\text{so } \frac{12}{16} = \frac{3}{4}$$

Directions: Find the greatest common factor and reduce each fraction to lowest terms. The first two are done for you.

1. $\frac{4}{6} = \frac{\div 2}{\div 2} = \frac{2}{3}$

GCF = 2

2. $\frac{5}{10} = \frac{\div 5}{\div 5} = \frac{1}{2}$

GCF = 5

3. $\frac{7}{21} =$

GCF =

4. $\frac{14}{16} =$

GCF =

5. $\frac{5}{15} =$

GCF =

6. $\frac{2}{8} =$

GCF =

7. $\frac{12}{24} =$

GCF =

8. $\frac{5}{25} =$

GCF =

9. $\frac{6}{9} =$

GCF =

10. $\frac{7}{14} =$

GCF =

11. $\frac{25}{50} =$

GCF =

12. $\frac{15}{25} =$

GCF =

13. $\frac{9}{18} =$

GCF =

14. $\frac{9}{15} =$

GCF =

15. $\frac{22}{33} =$

GCF =

16. $\frac{14}{21} =$

GCF =

17. $\frac{12}{18} =$

GCF =

18. $\frac{20}{24} =$

GCF =

19. $\frac{27}{33} =$

GCF =

20. $\frac{30}{36} =$

GCF =

21. $\frac{40}{50} =$

GCF =

22. $\frac{18}{24} =$

GCF =

23. $\frac{16}{24} =$

GCF =

24. $\frac{18}{27} =$

GCF =

Practice 4

Reminder

- Improper fractions have a numerator equal to or larger than the denominator. They have a value of 1 or greater.

Examples: $\frac{3}{2}$, $\frac{5}{5}$, $\frac{8}{3}$, $\frac{9}{2}$

- Mixed numbers contain a whole number and a fraction. They have a value greater than 1.

Examples: $3\frac{1}{2}$, $4\frac{2}{3}$, $5\frac{1}{5}$, $7\frac{4}{5}$, $4\frac{3}{4}$

- Mixed numbers are created from improper fractions by dividing the numerator by the denominator.

Examples: $\frac{5}{2} = 5 \div 2 = 2\frac{1}{2}$ $\frac{7}{3} = 7 \div 3 = 2\frac{1}{3}$ $\frac{4}{3} = 4 \div 3 = 1\frac{1}{3}$

- Mixed numbers are converted into improper fractions by multiplying the denominator times the whole number and adding the numerator. This number becomes the numerator in the improper fraction. The denominator in the improper fraction is the same denominator that you started with in the mixed number.

Examples: $2\frac{1}{3} = (3 \times 2) + 1 = \frac{7}{3}$ $5\frac{3}{4} = (4 \times 5) + 3 = \frac{23}{4}$

Directions: Change these improper fractions into mixed numbers. The first two are done for you.

1. $\frac{3}{2} = 3 \div 2 = 1\frac{1}{2}$

2. $\frac{5}{4} = 5 \div 4 = 1\frac{1}{4}$

3. $\frac{6}{5} =$

4. $\frac{7}{6} =$

5. $\frac{9}{4} =$

6. $\frac{9}{5} =$

7. $\frac{19}{10} =$

8. $\frac{12}{7} =$

9. $\frac{17}{6} =$

Directions: Change these improper fractions to whole numbers. The first one is done for you.

10. $\frac{9}{3} = 9 \div 3 = 3$

11. $\frac{8}{2} =$

12. $\frac{12}{4} =$

13. $\frac{16}{8} =$

14. $\frac{25}{5} =$

15. $\frac{20}{5} =$

Directions: Change these mixed numbers to improper fractions. The first one is done for you.

16. $3\frac{2}{3} = (3 \times 3) + 2 = \frac{11}{3}$

17. $4\frac{2}{3} =$

18. $6\frac{1}{2} =$

19. $5\frac{1}{2} =$

20. $2\frac{1}{4} =$

21. $4\frac{1}{5} =$

22. $3\frac{1}{3} =$

23. $2\frac{3}{4} =$

24. $7\frac{1}{3} =$

25. $4\frac{1}{2} =$

26. $2\frac{1}{6} =$

27. $5\frac{1}{2} =$

28. $4\frac{3}{4} =$

29. $3\frac{3}{4} =$

30. $1\frac{1}{12} =$

PRE-TEST—Addition

Write each answer in simplest form.

$$\begin{array}{r} a \\ 1. \quad \frac{1}{6} \\ + \frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} b \\ \frac{3}{8} \\ + \frac{1}{8} \\ \hline \end{array}$$

$$\begin{array}{r} c \\ \frac{5}{9} \\ + \frac{2}{9} \\ \hline \end{array}$$

$$\begin{array}{r} d \\ \frac{7}{12} \\ + \frac{5}{12} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \frac{5}{6} \\ + \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{7}{8} \\ + \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{7}{10} \\ + \frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{5} \\ + \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 7\frac{1}{2} \\ + 3\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 6\frac{7}{10} \\ + 1\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 5\frac{1}{3} \\ + \frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 4\frac{1}{3} \\ + 2\frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 1\frac{5}{8} \\ + 4\frac{1}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 5\frac{3}{4} \\ + \frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{7}{12} \\ + \frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{12} \\ + 6\frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad \frac{2}{3} \\ + \frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 9\frac{3}{8} \\ + \frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 3\frac{4}{5} \\ + 1\frac{3}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 4\frac{2}{3} \\ + 5\frac{5}{6} \\ \hline \end{array}$$

PRE-TEST—Multiplication

Write each answer in simplest form.

a
1. $\frac{3}{7} \times \frac{2}{5}$

b
 $\frac{3}{4} \times \frac{7}{8}$

c
 $\frac{4}{5} \times \frac{4}{5}$

2. $\frac{2}{3} \times \frac{7}{8}$

$\frac{5}{9} \times \frac{3}{5}$

$\frac{9}{10} \times \frac{5}{12}$

3. $4 \times \frac{2}{3}$

$3 \times \frac{5}{6}$

$\frac{5}{8} \times 10$

4. $3\frac{1}{5} \times 4$

$2\frac{1}{4} \times 8$

$6 \times 1\frac{5}{6}$

5. $2\frac{1}{2} \times 2\frac{1}{3}$

$2\frac{1}{4} \times 1\frac{1}{5}$

$1\frac{1}{8} \times 3\frac{1}{3}$

TEST—Multiplication

NAME _____

Write each answer in simplest form.

a

1. $\frac{7}{8} \times \frac{5}{6}$

b

$\frac{4}{5} \times \frac{3}{7}$

c

$\frac{2}{3} \times \frac{1}{5}$

2. $\frac{2}{3} \times \frac{5}{6}$

$\frac{8}{9} \times \frac{3}{8}$

$\frac{2}{5} \times \frac{15}{16}$

3. $8 \times \frac{3}{5}$

$9 \times \frac{5}{6}$

$\frac{3}{4} \times 20$

4. $2\frac{2}{5} \times 4$

$4\frac{1}{4} \times 6$

$3 \times 1\frac{2}{9}$

5. $\frac{2}{3} \times 1\frac{4}{5}$

$7\frac{1}{2} \times \frac{4}{5}$

$6\frac{1}{4} \times \frac{2}{5}$

6. $1\frac{3}{5} \times 1\frac{1}{3}$

$2\frac{1}{2} \times 3\frac{1}{3}$

$2\frac{1}{6} \times 1\frac{1}{8}$

Add. Reduce if you can.

Example

$$\begin{array}{r} \frac{11}{12} = \frac{22}{24} \\ + \frac{7}{8} = \frac{21}{24} \\ \hline 1 \frac{19}{24} \end{array}$$

a)

$$\begin{array}{r} \frac{23}{36} \\ + \frac{15}{18} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{6} \\ + \frac{7}{9} \\ \hline \end{array}$$

b)

$$\begin{array}{r} \frac{1}{6} \\ + \frac{12}{14} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{8} \\ + \frac{3}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{7} \\ + \frac{15}{28} \\ \hline \end{array}$$

c)

$$\begin{array}{r} \frac{3}{4} \\ + \frac{9}{16} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{10}{12} \\ + \frac{8}{18} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{5} \\ + \frac{2}{4} \\ \hline \end{array}$$



SCORE

Subtract. Reduce.

Example

$$\begin{array}{r} \frac{51}{60} \\ - \frac{26}{60} \\ \hline \frac{25}{60} = \frac{5}{12} \end{array}$$

a)

$$\begin{array}{r} \frac{14}{16} \\ - \frac{5}{16} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{21}{24} \\ - \frac{13}{24} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{11}{12} \\ - \frac{6}{12} \\ \hline \end{array}$$

b)

$$\begin{array}{r} \frac{9}{10} \\ - \frac{5}{10} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{12}{14} \\ - \frac{3}{14} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{23}{26} \\ - \frac{9}{26} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{39}{45} \\ - \frac{29}{45} \\ \hline \end{array}$$

c)

$$\begin{array}{r} \frac{17}{18} \\ - \frac{8}{18} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{30}{32} \\ - \frac{14}{32} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{18}{19} \\ - \frac{12}{19} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{47}{50} \\ - \frac{29}{50} \\ \hline \end{array}$$

d)

$$\begin{array}{r} \frac{17}{19} \\ - \frac{8}{19} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{25}{37} \\ - \frac{7}{37} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{20}{21} \\ - \frac{17}{21} \\ \hline \end{array}$$

WHY DOES A PIG IN
A PARLOR RESEMBLE
A FIRE?



BECAUSE THE SOONER IT'S
PUT OUT, THE BETTER!



SCORE

Practice 24



1. Which shows the bills and coins you could use to pay exactly \$7.68?
(A) 2 five-dollar bills, 2 one-dollar bills, 2 quarters, 2 dimes, 1 nickel, 4 pennies
(B) 2 five-dollar bills, 3 one-dollar bills, 3 quarters, 1 dime, 2 nickels, 3 pennies
(C) 1 five-dollar bill, 2 one-dollar bills, 2 quarters, 1 dime, 1 nickel, 3 pennies
(D) 1 five-dollar bill, 3 one-dollar bills, 2 quarters, 2 dimes, 2 nickels, 4 pennies

2. Which shows the bills and coins you could use to pay exactly \$11.52?
(A) 1 ten-dollar bill, 1 five-dollar bill, 1 one-dollar bill, 1 quarter, 3 dimes, 8 pennies
(B) 2 one-dollar bills, 1 quarter, 3 dimes, 8 pennies
(C) 1 ten-dollar bill, 1 one-dollar bill, 1 quarter, 2 dimes, 7 pennies
(D) 1 five-dollar bill, 2 one-dollar bills, 2 quarters, 2 dimes, 7 pennies

3. Which shows the bills and coins you could use to pay exactly \$15.88?
(A) 2 five-dollar bills, 1 one-dollar bill, 4 quarters, 2 nickels, 8 pennies
(B) 1 ten-dollar bill, 2 five-dollar bills, 3 quarters, 1 dime, 1 nickel, 9 pennies
(C) 1 five-dollar bill, 1 one-dollar bill, 3 quarters, 1 dime, 2 nickels, 9 pennies
(D) 1 ten-dollar bill, 1 five-dollar bill, 3 quarters, 1 nickel, 8 pennies

4. Which shows the bills and coins you could use to pay exactly \$4.26?
(A) 4 one-dollar bills, 2 dimes, 6 pennies
(B) 1 five-dollar bill, 5 one-dollar bills, 2 dimes, 6 pennies
(C) 1 five-dollar bill, 4 one-dollar bills, 3 dimes, 7 pennies
(D) 5 one-dollar bills, 3 dimes, 7 pennies

5. Which shows the bills and coins you could use to pay exactly \$8.80?
(A) 1 five-dollar bill, 3 one-dollar bills, 3 quarters, 5 pennies
(B) 2 five-dollar bills, 3 one-dollar bills, 3 quarters, 1 dime, 6 pennies
(C) 2 five-dollar bills, 4 one-dollar bills, 4 quarters, 5 pennies
(D) 1 five-dollar bill, 4 one-dollar bills, 3 quarters, 1 dime, 6 pennies

6. Which shows the bills and coins you could use to pay exactly \$14.19?
(A) 5 one-dollar bills, 2 dimes, 2 nickels, 5 pennies
(B) 1 five-dollar bill, 5 one-dollar bills, 1 dime, 2 nickels, 4 pennies
(C) 1 ten-dollar bill, 1 five-dollar bill, 4 one-dollar bills, 2 dimes, 1 nickel, 5 pennies
(D) 1 ten-dollar bill, 4 one-dollar bills, 1 dime, 1 nickel, 4 pennies

Practice 25



1. List the bills and coins you could use to pay the exact amount:
\$12.69
 - (A) one five; three ones; three quarters; one dime; two nickels; four pennies
 - (B) three ones; two quarters; two dimes; two nickels; five pennies
 - (C) one ten; one five; two ones; two quarters; two dimes; one nickel; five pennies
 - (D) one ten; two ones; two quarters; one dime; one nickel; four pennies

2. List the bills and coins you could use to pay the exact amount:
\$8.30
 - (A) two fives; three ones; one quarter; one dime; six pennies
 - (B) one five; three ones; one quarter; five pennies
 - (C) two fives; four ones; two quarters; five pennies
 - (D) one five; four ones; one quarter; one dime; six pennies

3. List the bills and coins you could use to pay the exact amount:
\$9.26
 - (A) one five; five ones; three dimes; seven pennies
 - (B) two fives; five ones; two dimes; six pennies
 - (C) two fives; four ones; three dimes; seven pennies
 - (D) one five; four ones; two dimes; six pennies

4. List the bills and coins you could use to pay the exact amount:
\$10.98
 - (A) one ten; one five; three quarters; two dimes; one nickel; nine pennies
 - (B) one one; three quarters; two dimes; two nickels; nine pennies
 - (C) one ten; three quarters; one dime; one nickel; eight pennies
 - (D) one five; one one; four quarters; one dime; two nickels; eight pennies

5. List the bills and coins you could use to pay the exact amount:
\$6.23
 - (A) two fives; one one; three dimes; four pennies
 - (B) one five; one one; two dimes; three pennies
 - (C) one five; two ones; three dimes; four pennies
 - (D) two fives; two ones; two dimes; three pennies

Practice 26

1. How many nickels does it take to make 80¢? (A) 15 (B) 32 (C) 16 (D) 17

2. How many dimes does it take to make 80¢? (A) 9 (B) 16 (C) 8 (D) 7

3. How many quarters does it take to make 50¢? (A) 3 (B) 2 (C) 1 (D) 4

4. How many dimes does it take to make 70¢? (A) 8 (B) 14 (C) 6 (D) 7

5. How many nickels does it take to make 35¢? (A) 7 (B) 8 (C) 14 (D) 6

6. You have six quarters, four dimes and five nickels. You can choose 1 item to buy. What are the toys that you can choose?

Yo-Yo	Modeling Clay	Paint Set	Board Game	Puzzle	Jump Rope
\$2.50	\$1.50	\$1.00	\$4.75	\$5.00	\$3.00

7. You bought a poster that cost \$4.37. List the bills and coins that you could receive as change from a five-dollar bill.

8. You bought a book that cost \$4.48. List the bills and coins that you could receive as change from a five-dollar bill.

9. You bought a hat that cost \$4.93. List the bills and coins that you could receive as change from a five-dollar bill.

10. You bought a game that cost \$4.12. List the bills and coins that you could receive as change from a five-dollar bill.

Practice 32



1. Estimate by rounding to the nearest dollar: $\$2.12 + \5.23

- (A) \$8 (B) \$7 (C) \$31 (D) \$5

2. Estimate by rounding to the nearest dollar: $\$9.78 + \7.31

- (A) \$17 (B) \$25 (C) \$19 (D) \$18

3. Estimate by rounding to the nearest dollar: $\$6.32 + \9.87

- (A) \$36 (B) \$18 (C) \$16 (D) \$15

4. Estimate by rounding to the nearest dollar: $\$7.31 + \1.27

- (A) \$7 (B) \$6 (C) \$60 (D) \$8

5. Estimate by rounding to the nearest dollar: $\$8.87 + \1.12

- (A) \$12 (B) \$78 (C) \$10 (D) \$9

6. Estimate by rounding to the nearest dollar: $\$6.71 + \3.98

- (A) \$12 (B) \$27 (C) \$9 (D) \$11

7. Estimate by rounding to the nearest dollar: $\$3.11 + \1.83

- (A) \$13 (B) \$5 (C) \$4 (D) \$7

8. Estimate by rounding to the nearest dollar: $\$4.82 + \2.11

- (A) \$27 (B) \$5 (C) \$7 (D) \$8

9. Estimate by rounding to the nearest dollar: $\$1.11 + \3.23

- (A) \$21 (B) \$2 (C) \$3 (D) \$4

10. Estimate by rounding to the nearest dollar: $\$1.82 + \3.31

- (A) \$5 (B) \$15 (C) \$4 (D) \$7

Practice 33

1. Estimate by rounding to the nearest dollar: \$9.24

$$\begin{array}{r} - 3.53 \\ \hline \end{array}$$

(A) \$5 (B) \$4 (C) \$12 (D) \$6

2. Estimate by rounding to the nearest dollar: \$8.42

$$\begin{array}{r} - 4.97 \\ \hline \end{array}$$

(A) \$4 (B) \$12 (C) \$2 (D) \$3

3. Estimate by rounding to the nearest dollar: \$6.14

$$\begin{array}{r} - 1.68 \\ \hline \end{array}$$

(A) \$3 (B) \$4 (C) \$7 (D) \$5

4. Estimate by rounding to the nearest dollar: \$7.10

$$\begin{array}{r} - 2.67 \\ \hline \end{array}$$

(A) \$7 (B) \$4 (C) \$5 (D) \$9

5. Estimate by rounding to the nearest dollar: \$8.33

$$\begin{array}{r} - 3.78 \\ \hline \end{array}$$

(A) \$4 (B) \$11 (C) \$3 (D) \$5

6. Estimate by rounding to the nearest dollar: \$6.06

$$\begin{array}{r} - 4.54 \\ \hline \end{array}$$

(A) \$2 (B) \$4 (C) \$1 (D) \$10

7. Estimate by rounding to the nearest dollar: \$7.18

$$\begin{array}{r} - 2.79 \\ \hline \end{array}$$

(A) \$4 (B) \$5 (C) \$3 (D) \$9

8. Estimate by rounding to the nearest dollar: \$8.08

$$\begin{array}{r} - 4.98 \\ \hline \end{array}$$

(A) \$12 (B) \$4 (C) \$6 (D) \$3

9. Estimate by rounding to the nearest dollar: \$7.25

$$\begin{array}{r} - 2.71 \\ \hline \end{array}$$

(A) \$9 (B) \$4 (C) \$7 (D) \$5

10. Estimate by rounding to the nearest dollar: \$6.44

$$\begin{array}{r} - 3.60 \\ \hline \end{array}$$

(A) \$9 (B) \$5 (C) \$2 (D) \$3

11. Estimate by rounding to the nearest dollar: \$6.23

$$\begin{array}{r} - 4.63 \\ \hline \end{array}$$

(A) \$1 (B) \$10 (C) \$2 (D) \$4

12. Estimate by rounding to the nearest dollar: \$9.36

$$\begin{array}{r} - 3.70 \\ \hline \end{array}$$

(A) \$8 (B) \$5 (C) \$6 (D) \$12

13. Estimate by rounding to the nearest dollar: \$7.34

$$\begin{array}{r} - 2.92 \\ \hline \end{array}$$

(A) \$5 (B) \$4 (C) \$3 (D) \$9

14. Estimate by rounding to the nearest dollar: \$6.45

$$\begin{array}{r} - 2.64 \\ \hline \end{array}$$

(A) \$6 (B) \$8 (C) \$3 (D) \$4

Problems

Solve each problem.

1. A fruit-drink recipe calls for 16 cups of water.
How many pints of water is this? How many quarts?

It is _____ pints of water.

It is _____ quarts of water.

2. Ross counted 7 gallons of milk and 3 quarts of milk in the cooler. How many quarts of milk was this? How many pints of milk was this?

It was _____ quarts of milk.

It was _____ pints of milk.

3. Ann has 12 quarts and 1 pint of fruit drink. How many people can she serve at 1 pint per person? How many people can she serve at 1 cup per person?

She can serve _____ people at 1 pint each.

She can serve _____ people at 1 cup each.

4. Bernice and Charles have 3 pounds 12 ounces of hamburger. How many ounces is that?

That is _____ ounces.

5. How many 4-ounce hamburgers can be made from the meat in problem 4?

_____ 4-ounce hamburgers can be made.

6. How many 3-ounce hamburgers can be made from the meat in problem 4?

_____ 3-ounce hamburgers can be made.

7. How many 6-ounce hamburgers can be made from the meat in problem 4?

_____ 6-ounce hamburgers can be made.

1.

2.

3.

4.

5.

6.

7.

Division

Divide.

*a**b**c**d*

1. $28 \overline{) 776}$

$42 \overline{) 5176}$

$19 \overline{) 95}$

$33 \overline{) 133}$

2. $12 \overline{) 2606}$

$22 \overline{) 6754}$

$24 \overline{) 792}$

$11 \overline{) 1716}$

3. $14 \overline{) 84}$

$89 \overline{) 801}$

$75 \overline{) 753}$

$16 \overline{) 2616}$

4. $75 \overline{) 6375}$

$23 \overline{) 5543}$

$25 \overline{) 8000}$

$25 \overline{) 800}$

5. $15 \overline{) 6009}$

$60 \overline{) 1860}$

$20 \overline{) 7020}$

$48 \overline{) 1704}$

Zoey Chase is on the Case!

Zip Code Caper: Central USA

4th Grade

Barry the Bandit just escaped from jail in Cedar Rapids, Iowa. Help Detective Zoey Chase track Barry through Central USA by solving the multiplication problems and drawing a line to each city and zip code where he stops in the order the problems are given.

1.
$$\begin{array}{r} 2,538 \\ \times 27 \\ \hline 17,766 \\ + 50,760 \\ \hline 68,526 \\ \text{Lincoln} \end{array}$$

2.
$$\begin{array}{r} 473 \\ \times 185 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 435 \\ \times 181 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 641 \\ \times 122 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3,049 \\ \times 23 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 607 \\ \times 104 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 3,959 \\ \times 14 \\ \hline \end{array}$$

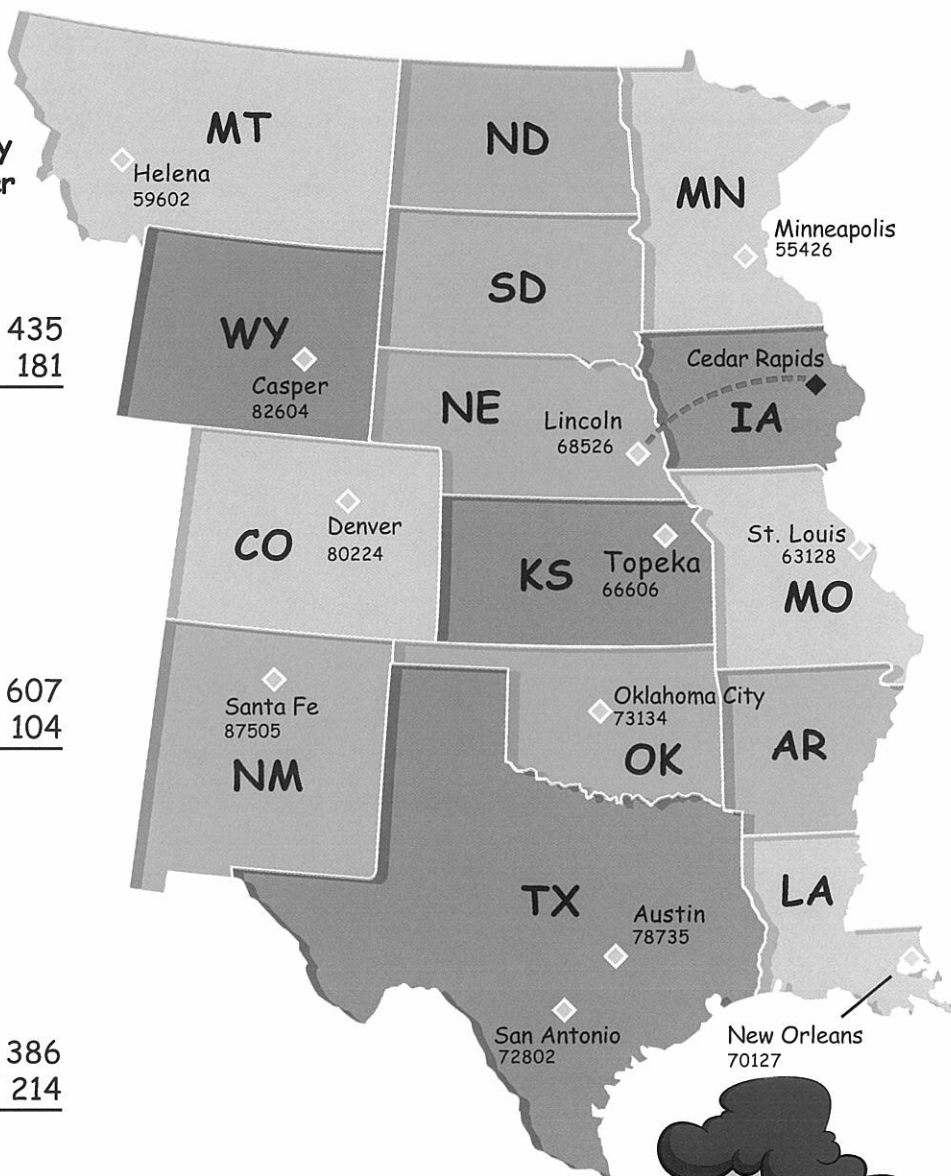
8.
$$\begin{array}{r} 1,753 \\ \times 34 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 386 \\ \times 214 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 736 \\ \times 109 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 102 \\ \times 653 \\ \hline \end{array}$$

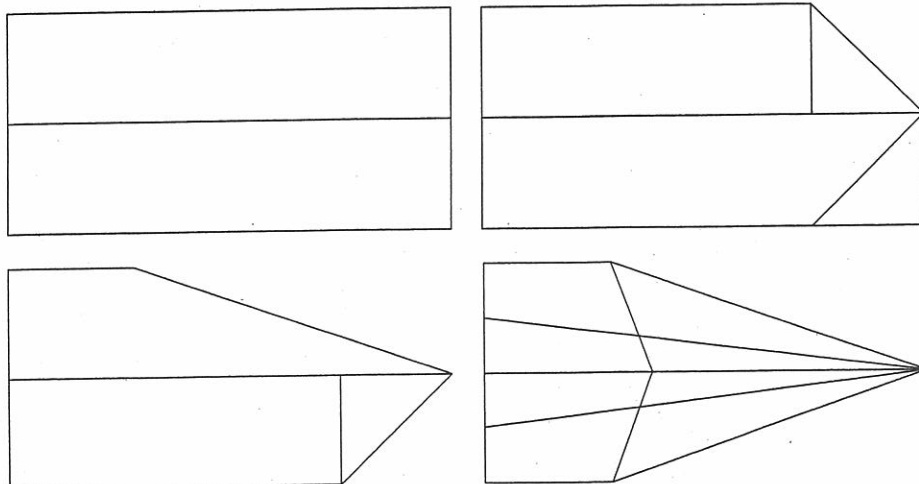
12.
$$\begin{array}{r} 306 \\ \times 239 \\ \hline \end{array}$$



Paper Airplanes

Name _____

Making paper planes can be a lot of fun. Make the paper airplane using the diagram below or construct your own version. Test fly your airplane. Try to do this inside if possible or away from any wind or breeze.



After test flying your airplane and making any modifications to it, find the average distance your airplane flies. Fly your airplane ten times and measure accurately the distance it traveled on each flight.

Record your findings below.

Flight	Distance	Flight comments
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

Average distance = total of distances ÷ number of flights (10) = _____

How is it Measured?

Name _____

Find samples of the food and drink items listed below. Read the labels carefully. How are the contents of each item measured? List the unit of measure used for each item and the total contents.

Item	Unit of measure	Total of contents
A soft drink can		
An ice cream container		
A jar of coffee		
A margarine container		
A milk carton		
A ketchup bottle		
A cereal box		
A jar of jam		
A can of soup		
An instant soup packet		
A bag of apples		

Explain why there are different methods of measuring the contents of food and drink items.



True Capacity

Name _____

Normally, food and drink containers state how much they contain on the outside of the packet, jar, bottle or can. Generally, with liquid types of material, the contents are stated in fluid ounces, pints, quarts and gallons and the solid types of material are stated in ounces or pounds. Occasionally, the contents are stated in cubic inches or even cubic yards.



Collect samples of the containers listed below. Read the contents statement on the container and note the unit of measure used and the capacity. Then measure the contents to see if this is the correct capacity.

Container	Unit of Measure	Stated Capacity	Measured Capacity
Juice carton			
Soft drink bottle			
Ice cream container			
Milk carton			
Milk bottle			
Soft drink can			
Own choice			
Own choice			

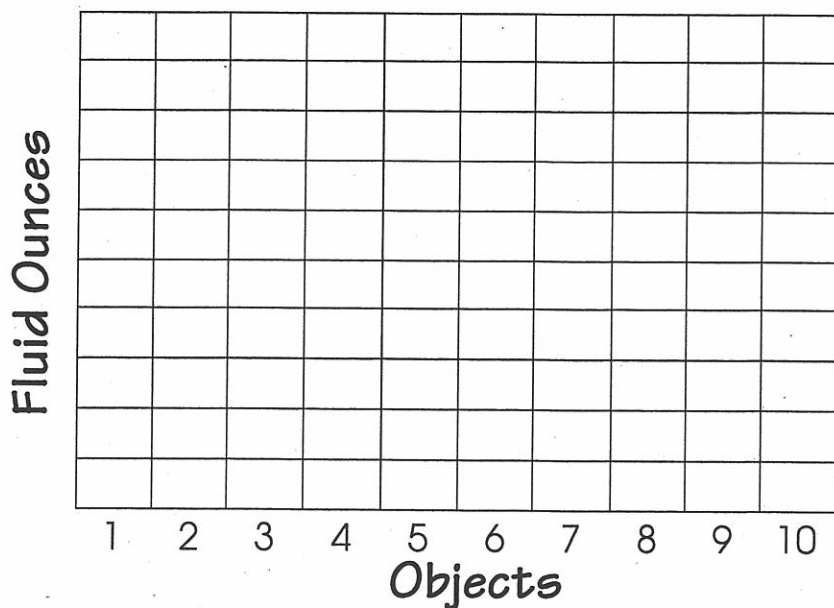
Are you getting value for your money? Explain your answer.

Water Displacement

Name _____

Find ten solid objects in your classroom. Estimate their volumes in fluid ounces and order them from largest in volume to least in volume. Measure their exact volume by displacing them in water. Do this by placing them into a full container of water and catching and measuring the overflow. Again order them from largest in volume to least in volume. Graph the measured volumes.

Object	Est. Vol.	Order	Meas. Vol.	Order
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				



Volume Graph

Name _____

The table below shows the volume of marbles in fluid ounces as they were measured by water displacement.

Number of marbles	10	20	30	40	50	60	70	80	90	100
Displacement in fl. oz.	3	6	9	12						

Finish the table and complete the graph below.

