Name _____ **Date** _____

Divide. Give your answer as a quotient with a remainder.

1. 9)372 **2.** 32)2,190 **3.** 8)582 **4.** 59)2,361

5. 23)1,577 **6.** 47)4,003 **7.** 84)9,415 **8.** 19)1,062

Solve.   *Show your work.*

9. A company spent $2,415 on plane tickets for
7 employees. All the tickets cost the same amount.
How much did each ticket cost?

_____

10. A theater seats 496 people. If all 8 performances to
a play sell out, how many people will see the play?

_____

11. The marching band raised $2,499 from a raffle and
cookie sale. Each of the 48 band members will get
an equal share of the money to put toward a new
uniform. How much money will each band member
get? How many cents will be left over?

_____

Name _____ **Date** _____

1. Damond is buying packages of construction paper. In each package there are 6 white sheets and 18 colored sheets. How many colored sheets does he buy if he buys 14 white sheets?

   _____

2. Julia is making a necklace that has 8 red beads for every 12 blue beads. How many red beads will she use if she uses 27 blue beads?
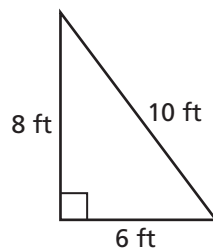
   _____

Find the perimeter and area of each figure.

3.

16 cm

9 cm

$P =$ _____

$A =$ _____

4.

8 ft   10 ft

6 ft

$P =$ _____

$A =$ _____

5.

8 yd

12 yd

$P =$ _____

$A =$ _____
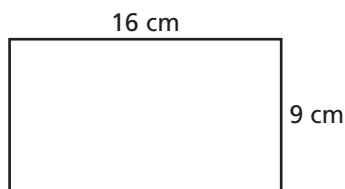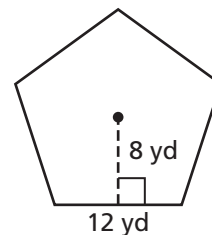
6. Marylin is cutting a triangular banner out of felt. The banner is 4 feet high and has a base of 3 feet. How much felt does Marylin need for the banner?

   _____

7. **Stretch Your Thinking** Natalia and her friends raised money for charity. The amount they raised is shown in the table. They pooled their money and divided it equally among four charities. How much money did they give to each charity?

   _____

Friend	Amount Raised
Natalia	$18
Juan	$21
Stephen	$37
Jawan	$43

Place Value and Whole Number Division

Solve.

Show your work.

1. Joshua cashed a check for $16.79. He asked the teller to give him as many quarters as possible. How many quarters did he get?

_____

2. The tallest tree in the world is a redwood in Redwood National and State Parks. It is 379 feet tall. How many yards is this?

_____

3. Emergency workers in a small city estimate that, in the event of a hurricane, they will need to transport 3,250 people out of the city on buses. If each bus holds 48 people, how many buses will they need?

_____

4. On Tuesday, a company bottled 4,775 bottles of water and packaged them into as many 6-packs as possible. How many bottles were left over?

_____

5. A landscaping company bought 732 kilograms of mulch. If they bought 40 bags of mulch in all, what is the mass of each bag?

_____

Divide. Give your answers to the nearest cent.

6. $36\overline{)\$117}$ **7.** $85\overline{)\$380}$ **8.** $62\overline{)\$729}$ **9.** $18\overline{)\$402}$
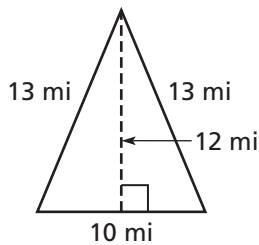
Remembering

1. Michelle is mixing paint. She mixes 5 cups red for every 3 cups blue to make purple. How many cups of red should she use if she uses 15 cups of blue?

   _____

2. For every 15 minutes Jason spends practicing the piano, he spends 10 minutes practicing the trumpet. If Jason spends 30 minutes practicing the piano, how many minutes does he spend practicing the trumpet?
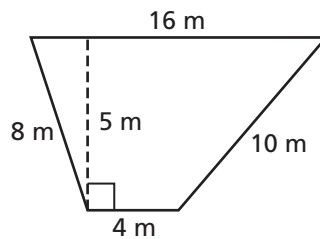
   _____

Find the perimeter and area of each figure.

3.

13 mi   13 mi

12 mi

10 mi

P = _____

A = _____

4.

16 m

8 m   5 m

10 m

4 m

P = _____

A = _____

5.

10 in.

8 in.

P = _____

A = _____
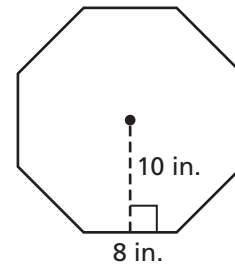
6. Barry needs 56 square feet of mulch to cover his garden. The width of the garden is 8 feet. What is the length of the garden?

   _____

7. **Stretch Your Thinking** There are 113 girls and 121 boys in the marching band. The routine the band is practicing has all of the musicians standing in equal rows. If the number of rows is between 10 and 15, how many rows are there? How many musicians are standing in each row?

   _____

Estimated Multipliers in Division

Multiply.

1. 413 • 0.02

2. 0.6 • 801

3. 32.5 • 0.5

4. 4 • 6.63

_____ _____ _____ _____

5. 0.12
    × 12

6.   5.9
   × 4.4

7.   6.1
   × 0.19

8.   36
   × 0.07

Use the fact that 28 • 63 = 1,764 to find each product.

9. 0.28 • 6,300

10. 0.28 • 630

11. 0.28 • 63

12. 28 • 6.3

_____ _____ _____ _____

13. 2.8 • 630

14. 2.8 • 63

15. 2.8 • 6.3

16. 28 • 0.63

_____ _____ _____ _____

Multiply.

17. 0.8 • 0.9

18. 8 • 0.7

19. 0.5 • 6

20. 0.12 • 3

_____ _____ _____ _____

Solve.

Show your work.

21. The Neelys have 87.6 acres of land. The Francos have
0.7 times as much land. How much land do the Francos have?

_____

22. Dante bought six CDs for $13.88 each. How much did
he spend?

_____

1. For every 6 miles Juda runs, Hannah runs 11 miles. If the ratio stays the same, how many miles will Juda run if Hannah runs 44 miles?

   _____

2. There is a woodchip area shaped like a trapezoid at the playground at Millie's school. The bases of the trapezoid are 12 feet and 18 feet. The height of the trapezoid is 20 feet. How much of the playground is covered with woodchips?

   _____

Divide. Write your answer as a quotient with a remainder.

3. $9\overline{)877}$

4. $78\overline{)8,322}$

5. $6\overline{)403}$

6. $16\overline{)1,277}$

7. Ned is using strips of cloth to make scarves. He needs 28 strips for each scarf. If he has 781 strips of cloth, how many scarves can Ned make? How many strips will be left over?

   _____

8. **Stretch Your Thinking** Nancy and Bruce are typing reports. Nancy's report is 12 pages long, and she has typed 0.7 of it. Bruce's report is 9 pages long, and he has typed 0.8 of it. Who has typed more pages?

   _____

Name _____ **Date** _____

Divide. Round your answer to the nearest tenth.

1. $0.4\overline{)6}$

2. $0.08\overline{)4.2}$

3. $2.4\overline{)40}$

4. $0.5\overline{)0.94}$

5. $0.12\overline{)5.4}$

6. $0.55\overline{)13}$

7. $7.5\overline{)6.5}$

8. $0.24\overline{)8}$

Use the fact that 1,764 ÷ 28 = 63 to find each quotient.

9. $0.28\overline{)1.764}$

10. $0.28\overline{)176.4}$

11. $0.28\overline{)17.64}$

12. $28\overline{)176.4}$

13. $2.8\overline{)1,764}$

14. $2.8\overline{)176.4}$

15. $2.8\overline{)17.64}$

16. $28\overline{)17.64}$

Divide. Be careful to consider which number is the divisor.

17. $1.8 \div 0.09$

18. $21 \div 0.7$

19. $3.2 \div 0.8$

20. $0.12 \div 0.04$

_____ _____ _____ _____

Solve.

Show your work.

21. Ronit is buying storage boxes for her CDs. She has 456 CDs. Each box holds 36 CDs. How many boxes will she need?
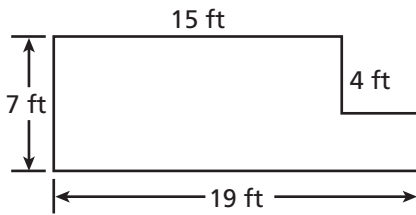
_____

22. Raul's mom sends him to the farmer's market with $12. She tells him to buy as many avocados as he can and to bring back the change. If avocados are 85¢ each, how much change will he bring back?

_____

Remembering

1. John and Karen are each saving money at their own constant rate. When John has saved $15, Karen has saved $18. How much will Karen have saved when John has saved $45?
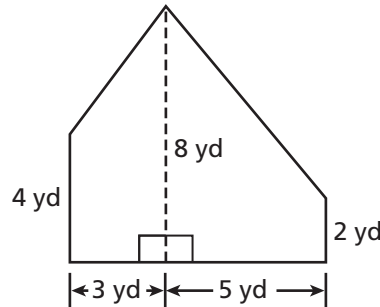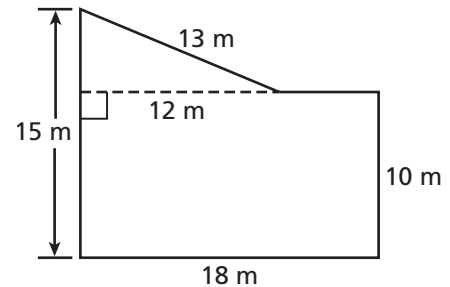
_____

Find the area.

2.

15 ft

4 ft

7 ft

19 ft

A = _____

3.

8 yd

4 yd

2 yd

|← 3 yd →|← 5 yd →|

A = _____

4.

13 m

12 m

15 m

10 m

18 m

A = _____

5. Marissa is driving across the country. She drives 1,542 miles in 3 days. She drives the same number of miles each day. How many miles does Marissa drive each day?

_____

6. Joanna can put 24 books in one container. She has to pack 266 books. How many containers does she need to pack all the books?

_____

Use the fact that 45 × 39 = 1,755 to find each product.

7. 0.45 • 39   8. 4.5 • 0.39   9. 4.5 • 3.9   10. 0.45 • 0.39

_____   _____   _____   _____

11. **Stretch Your Thinking** Bottles of water are on sale at two stores. Food Mart is selling 12 bottles for $3.66. Shop Center is selling 6 bottles for $2.10. At which store does it cost less to buy one bottle of water?

_____

Decimal Divisors

1. Make up a letter Puzzled Penguin might write describing an error made while multiplying or dividing.
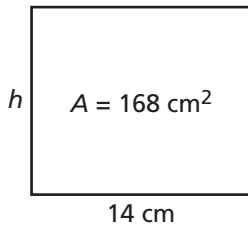
Dear Math Students,

_____

_____

_____

_____

_____

_____

_____

_____

_____

Your friend,
Puzzled Penguin

2. Write a response to your Puzzled Penguin letter.

_____

_____

_____

_____

_____

_____

_____

1. The pet store is selling 9 cans of cat food for $12. At this price, how many cans of cat food can you buy for $32?

   _____

Find the unknown side length.

2.

h | $A = 168$ cm^2

14 cm

$h =$ _____

3.

17 in.

h | $A = 60$ in.^{2}

15 in.

$h =$ _____

4.

19 mm | $A = 1,178$ mm^2 | 25 mm

b

$b =$ _____
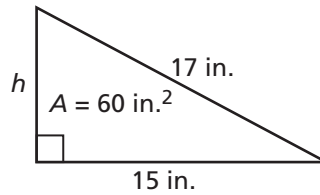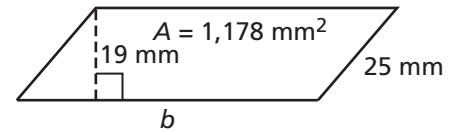
Multiply or divide. Round the quotient to the nearest tenth if necessary.

5.   5.9
   × 2.4

6. $0.9\overline{)53.1}$

7.   0.56
   × 9.7

8. $0.28\overline{)233.6}$

9. $0.5\overline{)2.05}$

10.   125
   × 0.6

11. $1.9\overline{)6.84}$

12.   4.1
   × 0.38

13. **Stretch Your Thinking** Jenny and George combined their allowances to buy the same present for each of their four teachers. Jenny had $13.75. George had $2.26 less than Jenny. How much did one present cost?

   _____

Complete each statement with < or >.

1. $\frac{1}{3}$ ◯ $\frac{1}{2}$

2. $\frac{1}{6}$ ◯ $\frac{1}{8}$

3. $\frac{3}{8}$ ◯ $\frac{3}{5}$

4. 0.04 ◯ 0.004

5. $\frac{2}{5}$ ◯ $\frac{2}{3}$

6. $\frac{7}{10}$ ◯ $\frac{7}{8}$

7. 0.2 ◯ 0.02

8. 0.03 ◯ 0.3

9. $5\frac{3}{8}$ ◯ $6\frac{5}{8}$

10. $6\frac{1}{3}$ ◯ $7\frac{1}{2}$

11. 4.2 ◯ 2.4

12. 3.1 ◯ 3.0

13. $\frac{4}{7}$ ◯ $\frac{6}{7}$

14. $\frac{9}{8}$ ◯ $\frac{13}{8}$

15. 0.05 ◯ 0.03

16. 0.2 ◯ 0.3

Add or subtract.

17. $\frac{2}{9} + \frac{5}{9} =$ _____

18. $\frac{4}{5} - \frac{1}{5} =$ _____

19. $2\frac{2}{3} + 1\frac{2}{3} =$ _____

20. $\begin{array}{r} 4.2 \\ -1.3 \\ \hline \end{array}$

21. $\begin{array}{r} 5\frac{1}{7} \\ -2\frac{5}{7} \\ \hline \end{array}$

22. $\begin{array}{r} 21.43 \\ -8.65 \\ \hline \end{array}$

23. $\begin{array}{r} 8\frac{4}{9} \\ -3\frac{7}{9} \\ \hline \end{array}$

24. $\begin{array}{r} 6\frac{2}{5} \\ -1\frac{4}{5} \\ \hline \end{array}$

25. $\begin{array}{r} 5\frac{1}{3} \\ -3\frac{2}{3} \\ \hline \end{array}$

26. $\begin{array}{r} 3\frac{4}{7} \\ +2\frac{5}{7} \\ \hline \end{array}$

27. $\begin{array}{r} 16.15 \\ -7.68 \\ \hline \end{array}$

Solve.

28. A carpenter has a block of wood 2.4 meters long. He cuts off 1.8 meters. How long is the block of wood now?

_____

Remembering

1. Sarah can read 4 pages in 20 minutes. If she continues to read at the same rate, how many minutes will it take Sarah to read 7 pages?

_____

2. Plot these ordered pairs: $A(4, 2)$, $B(1, 6)$, $C(7, 6)$. Plot point D and draw segments to form parallelogram $ABCD$. Segment AB is 5 units long. Find the perimeter and area of parallelogram $ABCD$.

  $P =$ _____

  $A =$ _____
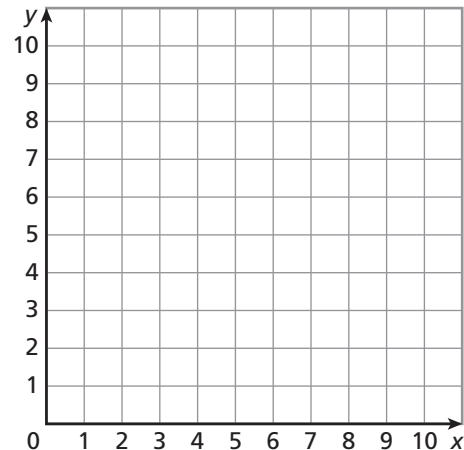
For each problem, write if you need to *multiply* or *divide*. Then solve.

3. Maria bought 5.5 pounds of pork for $13.75. How much was the cost of the pork per pound?

_____

4. Jeremiah ran 5.6 miles every day for 2 weeks. How many miles did he run in all?

_____

5. A chalkboard has an area of 35.8 square feet. A smaller chalkboard is 0.7 times that size. What is the area of the smaller chalkboard?

_____

6. Han's garden has an area of 193.75 square feet. If the length of the garden is 12.5 feet, what is the width?

_____

7. Stretch Your Thinking Kendra, John, and Angel go to the same school. John lives 0.8 times as far as Kendra does from the school. Angel lives 1.3 times as far as Kendra. If Angel lives 5.59 miles from school, how far do Kendra and John live from school?

_____

_____

Homework

Complete each statement with < or >.

1. $0.2 \bigcirc 0.04$ **2.** $1.02 \bigcirc 1.2$ **3.** $0.35 \bigcirc 0.3$

4. $\frac{4}{5} \bigcirc \frac{11}{20}$ **5.** $\frac{5}{24} \bigcirc \frac{3}{8}$ **6.** $\frac{1}{4} \bigcirc \frac{5}{16}$

Add.

7. $\frac{1}{3} + \frac{1}{6} = $ _____   **8.** $\frac{1}{16} + \frac{5}{8} = $ _____   **9.** $0.2 + 0.08 = $ _____

10. $2.31 + 0.4 = $ _____   **11.** $\frac{5}{12} + \frac{3}{4} = $ _____   **12.** $0.19 + 0.9 = $ _____

13. $\frac{8}{9} + \frac{1}{3} = $ _____   **14.** $\frac{1}{5} + \frac{3}{20} = $ _____   **15.** $0.91 + 0.1 = $ _____

Subtract.

16. $\frac{1}{2} - \frac{1}{6} = $ _____   **17.** $\frac{11}{12} - \frac{5}{6} = $ _____   **18.** $0.4 - 0.18 = $ _____

19. $4.35 - 0.6 = $ _____   **20.** $\frac{10}{24} - \frac{3}{8} = $ _____   **21.** $0.19 - 0.1 = $ _____

22. $2.15 - 1.4 = $ _____   **23.** $\frac{4}{5} - \frac{5}{15} = $ _____   **24.** $\frac{23}{24} - \frac{5}{6} = $ _____

Solve.   *Show your work.*

25. A bush is 2.3 meters tall. It is growing next to a fence that is 3.2 meters tall. How much shorter than the fence is the bush?

_____

26. Lori had $\frac{3}{8}$ of a bag of flour for a recipe. Her friend gave her $\frac{1}{4}$ of a bag. How much flour does Lori have?

_____

27. Leroy spent $\frac{5}{9}$ of the study period working on math. Marta spent $\frac{1}{3}$ of the study period working on math. How much more of the period did Leroy work on math than Marta?

_____

Remembering

1. Shaina and her little brother Shaud are making friendship bracelets. For every 8 bracelets Shaina makes, Shaud makes 5 bracelets. If the ratio stays the same, how many bracelets will Shaud make if Shaina makes 32 bracelets?

   _____

2. Gerrard is a painter. He is using a canvas that is in the shape of a regular hexagon. The perimeter of the canvas is 78 in. The perpendicular distance from a side to the center is 11 in. to the nearest inch. Based on these measurements, what is area of the canvas?

   _____

For each problem, write if you need to _multiply_ or _divide_. Then solve.

3. Stephen is buying storage boxes for a card game. Each box holds 75 cards. If he has 235 cards, how many storage boxes does he need to hold all the cards?

   _____

4. Isabella has $15.57 to buy strawberries at the store. Each pint of strawberries costs $2.35. How many full pints of strawberries can Isabella buy?

   _____

5. The Van Ness family is playing games. They decide to spend 0.75 hour playing each of 5 games. For how long will the family play games?

   _____

6. Jordan has a board that is 56.4 cm long. He cuts the board into 12 equal pieces. How long is each piece?

   _____

7. **Stretch Your Thinking** Genna, Tasmina, and Juan participated in a long jumping competition. Their jump lengths were $2\frac{2}{5}$ meters, $3\frac{1}{3}$ meters, and $2\frac{2}{7}$ meters. Genna had the longest jump. Juan's jump was not the shortest. How far did each student jump?

   _____

   _____

Homework

Complete each statement with $<$ or $>$.

1. $\frac{5}{8}$ ◯ $\frac{7}{10}$

2. $\frac{1}{4}$ ◯ $\frac{3}{10}$

3. $\frac{2}{3}$ ◯ $\frac{5}{7}$

4. $\frac{5}{6}$ ◯ $\frac{7}{10}$

Add or subtract.

5. $\frac{3}{8} + \frac{5}{12} =$ _____

6. $\frac{1}{3} + \frac{5}{8} =$ _____

7. $2\frac{6}{7} + 4\frac{4}{5} =$ _____

8. $3\frac{5}{6} + 2\frac{3}{5} =$ _____

9. $5\frac{3}{4} - 3\frac{5}{6} =$ _____

10. $4\frac{1}{2} - 2\frac{8}{9} =$ _____

11. $3\frac{5}{8} - 1\frac{5}{6} =$ _____

12. $5\frac{1}{3} - 2\frac{4}{5} =$ _____

Solve.

Show your work.

13. Linda bought $2\frac{2}{3}$ yards of fabric for a project. She used $1\frac{1}{4}$ yards. How much fabric does she have left?

_____

14. Jerry rides his bike $1\frac{3}{10}$ miles one day. He bikes $1\frac{5}{8}$ miles the next day. How far does he ride in the two days altogether?

_____

Name   **Date**

1. The table shows the prices of dog treats. If Michelle spends $24 on 9 boxes of treats, which treats does she buy?

Tasty Bits	2 boxes for $3
Crispy Treats	3 boxes for $8
Doggie Strips	1 box for $2

_____

2. Mr. Beni sketched this floor plan of several rooms in his house. How much carpeting does Mr. Beni need to cover all of the floor space shown?

_____

20 ft
10 ft
12 ft
8 ft
23 ft
19 ft
45 ft
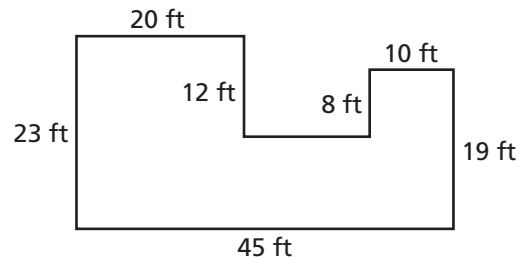
Complete each statement with < or >.

3. $\frac{4}{5} \bigcirc \frac{4}{7}$ 4. $\frac{3}{8} \bigcirc \frac{5}{16}$ 5. $0.7 \bigcirc 0.9$ 6. $\frac{7}{24} \bigcirc \frac{1}{4}$

7. $\frac{4}{9} \bigcirc \frac{2}{3}$ 8. $1.03 \bigcirc 1.3$ 9. $0.76 \bigcirc 0.7$ 10. $\frac{5}{9} \bigcirc \frac{2}{9}$

Add or subtract.

11. $\begin{array}{r} 45.7 \\ -\ 8.9 \\ \hline \end{array}$

12. $\begin{array}{r} 8\frac{1}{3} \\ -\ 6\frac{2}{3} \\ \hline \end{array}$

13. $\begin{array}{r} 5.6 \\ +\ 1.9 \\ \hline \end{array}$

14. $\begin{array}{r} \frac{9}{10} \\ -\ \frac{2}{5} \\ \hline \end{array}$

15. $\begin{array}{r} \frac{15}{16} \\ -\ \frac{5}{8} \\ \hline \end{array}$

16. $\begin{array}{r} 23.8 \\ -\ 17.8 \\ \hline \end{array}$

17. $\begin{array}{r} 16.3 \\ -\ 7.6 \\ \hline \end{array}$

18. $\begin{array}{r} 3\frac{6}{7} \\ +\ 1\frac{3}{7} \\ \hline \end{array}$

19. **Stretch Your Thinking** Cheryl goes shopping with a gift card. She spends $4.50 on a belt. Then she spends $21.75 on a necklace. She has $25.60 left on the gift card. How much was on the gift card when she started shopping?

_____

Homework

Add or subtract.

1. $1.32 + 2.8 =$ _____

2. $9\frac{1}{2} - 5\frac{2}{3} =$ _____

3. $3\frac{1}{4} - 1\frac{11}{12} =$ _____

4. $\frac{2}{3} + 1\frac{5}{7} =$ _____

5. $2.7 - 0.82 =$ _____

6. $4\frac{3}{8} + 2\frac{3}{10} =$ _____

7. $\frac{6}{11} - \frac{1}{5} =$ _____

8. $5.13 + 2.8 =$ _____

9. $1\frac{4}{5} + \frac{3}{10} =$ _____

10. $2\frac{1}{2} - \frac{3}{8} =$ _____

11. $2.18 - 1.3 =$ _____

12. $2\frac{3}{4} + 5\frac{7}{10} =$ _____

Complete each statement with < or >.

13. $1.8 \bigcirc 1.08$

14. $\frac{2}{3} \bigcirc \frac{3}{5}$

15. $1\frac{7}{12} \bigcirc 1\frac{5}{8}$
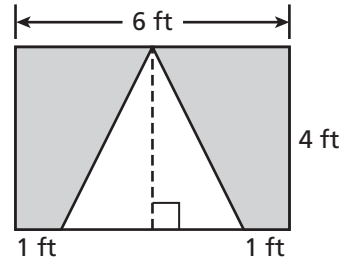
16. $3\frac{2}{3} \bigcirc 3\frac{8}{9}$

17. $0.14 \bigcirc 0.41$

18. $\frac{2}{5} \bigcirc \frac{1}{10}$

Name _____ **Date** _____

Remembering

1. Hannah is helping her father install a patio. For every 12 square bricks, they are using 10 round bricks. If they use 35 round bricks, how many square bricks will they use?

_____

2. Jerry is painting the shaded part of this banner. What is the area of the part of the banner he is painting?

_____

6 ft • 4 ft • 1 ft • 1 ft

Complete each statement with $<$ or $>$.

3. $\dfrac{1}{2} \bigcirc \dfrac{5}{8}$

4. $\dfrac{4}{5} \bigcirc \dfrac{5}{7}$

5. $0.33 \bigcirc 0.41$

6. $\dfrac{3}{5} \bigcirc \dfrac{5}{8}$

7. $6.07 \bigcirc 6.17$

8. $\dfrac{1}{6} \bigcirc \dfrac{3}{10}$

9. $\dfrac{5}{8} \bigcirc \dfrac{7}{12}$

10. $11.29 \bigcirc 11.31$

Add or subtract.

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

12. $\begin{array}{r} 2\frac{2}{3} \\ - \ 1\frac{1}{3} \\ \hline \end{array}$

13. $\begin{array}{r} 27.1 \\ + \ 12.6 \\ \hline \end{array}$

14. $\begin{array}{r} \frac{1}{2} \\ + \ \frac{3}{8} \\ \hline \end{array}$

15. $\begin{array}{r} 2\frac{3}{7} \\ - \ 1\frac{2}{3} \\ \hline \end{array}$

16. $4.45 + 14.6 =$ _____

17. $\begin{array}{r} 5\frac{1}{2} \\ + \ 1\frac{8}{9} \\ \hline \end{array}$

18. $10.04 + 8.2 =$ _____

19. **Stretch Your Thinking** Lucy has $3\frac{3}{4}$ feet of ribbon. She needs $1\frac{1}{2}$ feet of ribbon for one project. She needs $1\frac{5}{6}$ feet of ribbon for another project. Will Lucy have more or less than $\frac{1}{2}$ foot of ribbon left after she completes both projects? Explain.

_____

_____

Mixed Problem Solving

Multiply.

1. $\frac{3}{8} \cdot 10 =$ _____

2. $\frac{7}{8} \cdot 11 =$ _____

3. $\frac{4}{5} \cdot 12 =$ _____

4. $9 \cdot \frac{2}{3} =$ _____

5. $10 \cdot \frac{5}{7} =$ _____

6. $2 \cdot \frac{3}{5} =$ _____

7. $\frac{2}{3} \cdot \frac{6}{7} =$ _____

8. $\frac{5}{8} \cdot \frac{1}{3} =$ _____

9. $\frac{4}{7} \cdot \frac{5}{7} =$ _____

10. $1\frac{2}{9} \cdot 2\frac{1}{3} =$ _____

11. $2\frac{4}{5} \cdot 3\frac{1}{8} =$ _____

12. $4\frac{1}{6} \cdot 2\frac{2}{5} =$ _____

Dear Math Students,

This summer, I am going to earn money mowing lawns. I can mow $\frac{2}{3}$ of a lawn in 1 hour. My friend told me that if I work for 5 hours, I can multiply $5 \cdot \frac{2}{3}$ to find the number of lawns I've mowed. But I said that in 5 hours, I'd mow $\frac{2}{15}$ of a lawn. Does my answer seem reasonable?
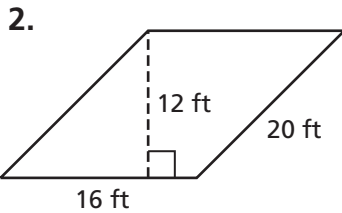
Your friend,
Puzzled Penguin

13. Write a response to Puzzled Penguin.
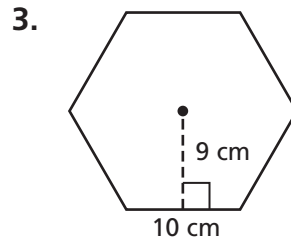
_____

_____

_____

Remembering

1. During a storm, snow fell 4 inches every 2 hours. At this rate, how long will it take for 10 inches of snow to fall?

_____

Find the perimeter and area of each figure.

2.

12 ft
20 ft
16 ft

$P =$ _____

$A =$ _____

3.

9 cm
10 cm

$P =$ _____

$A =$ _____

4.

29 in.
20 in.
21 in.

$P =$ _____

$A =$ _____
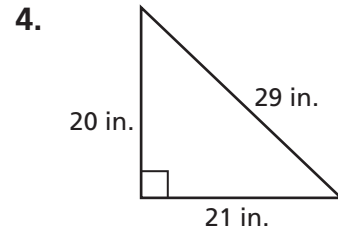
Complete each statement with < or >.

5. $\frac{3}{4}$ ◯ $\frac{6}{7}$

6. $\frac{1}{3}$ ◯ $\frac{1}{5}$

7. 9.03 ◯ 9.1

8. 4.56 ◯ 5.01

Add or subtract.

9. $\frac{5}{6}$
  $-\frac{1}{2}$

10. $1\frac{4}{5}$
  $-\frac{4}{9}$

11. 133.9
  $+\ 29.9$

12. $\frac{3}{8}$
  $+\frac{1}{3}$

13. $3\frac{1}{4}$
  $-\ 1\frac{2}{3}$

14. 44.9
  $+\ 2.3$

15. 14.22
  $+\ 20.1$

16. 5.99
  $-\ 1.08$

17. **Stretch Your Thinking** Marty has a box of raisins. He uses $1\frac{1}{2}$ cups of raisins for trail mix. Then he opens a bag with $2\frac{1}{3}$ cups of raisins in it. Marty then uses $\frac{3}{4}$ cup of raisins for bread pudding. There are $3\frac{1}{2}$ cups of raisins left. How many cups of raisins were in the box? Explain.

_____

_____

_____

Divide.

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

2. $12 \div \frac{1}{6} =$ _____

3. $8 \div 7 =$ _____

4. $10 \div \frac{1}{4} =$ _____

5. $14 \div \frac{1}{3} =$ _____

6. $\frac{1}{6} \div 3 =$ _____

7. $\frac{1}{12} \div 8 =$ _____

8. $9 \div 14 =$ _____

9. $\frac{1}{8} \div 4 =$ _____

10. $10 \div 11 =$ _____

11. $13 \div 12 =$ _____

12. $\frac{1}{3} \div 7 =$ _____

13. $9 \div \frac{1}{4} =$ _____

14. $11 \div 6 =$ _____

15. $\frac{1}{5} \div 14 =$ _____

16. Kim ran 4 blocks in the time it took her little brother Mikey to toddle $\frac{1}{3}$ block.

  a. Kim ran how many times as many blocks as Mikey toddled? Explain how you found your answer.

  _____

  _____

  b. Mikey toddled how many times as many blocks as Kim ran? Explain how you found your answer.

  _____

  _____

1. On the sixth grade field trip, there are 2 teachers for every 9 students. If there are 63 students on the trip, how many teachers are there?

_____

Find the unknown side length.

2.

$A = 63$ m²
x
14 m

x = _____

3.

21 in.
$A = 1,533$ in.²
n

n = _____

4.

9 yd
15 yd
$A = 45$ yd²
b

b = _____

Add or subtract.

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

6. $\frac{7}{10}$
$- \ \frac{4}{10}$

7. 105.7
$+ \ \ 16.9$

8. 23.9
$- \ \ 9.1$

Multiply.

9. $\frac{5}{6} \cdot \frac{1}{4} =$ _____

10. $\frac{3}{10} \cdot \frac{4}{9} =$ _____

11. $\frac{5}{7} \cdot \frac{5}{6} =$ _____

12. $\frac{2}{3} \cdot \frac{9}{14} =$ _____

13. $1\frac{2}{3} \cdot 2\frac{1}{3} =$ _____

14. $3\frac{4}{5} \cdot 1\frac{1}{2} =$ _____

15. $2\frac{4}{5} \cdot 2\frac{3}{4} =$ _____

16. $1\frac{4}{5} \cdot \frac{3}{10} =$ _____

17. **Stretch Your Thinking** Joelle's cooking class is $2\frac{1}{2}$ times as long as her karate class. Her cooking class starts at 4 P.M. If her karate class is $\frac{1}{2}$ hour long, at what time does her cooking class end? Explain.

_____

_____

_____

Dividing with Fractions and Whole Numbers

Homework

Multiplying a number by a fraction less than 1 results in a lesser number. Dividing a number by a fraction less than 1 results in a greater number.

Multiply or divide.

1. $12 \div 13 =$ _____

2. $8 \div \frac{1}{2} =$ _____

3. $\frac{1}{2} \div 8 =$ _____

4. $\frac{2}{5} \cdot \frac{3}{8} =$ _____

5. $14 \div \frac{1}{3} =$ _____

6. $\frac{1}{5} \div 10 =$ _____

7. $1\frac{1}{3} \cdot 2\frac{1}{4} =$ _____

8. $\frac{3}{5} \cdot 6 =$ _____

9. $30 \div \frac{1}{3} =$ _____

10. $1\frac{2}{3} \cdot \frac{7}{10} =$ _____

11. $\frac{11}{15} \cdot \frac{5}{6} =$ _____

12. $\frac{1}{8} \div 7 =$ _____

13. $15 \div 8 =$ _____

14. $24 \div \frac{1}{3} =$ _____

15. $\frac{5}{8} \cdot \frac{4}{25} =$ _____

16. $\frac{3}{7} \cdot \frac{2}{3} =$ _____

17. $\frac{1}{9} \div 4 =$ _____

18. $17 \div \frac{1}{2} =$ _____

Solve.

Show your work.

19. The fire station is 9 kilometers from the library. Tracey walked $\frac{3}{5}$ of the distance. How far did Tracey walk?

_____

20. Tony usually saves $\frac{1}{5}$ of his allowance. Last week, he only saved $\frac{2}{3}$ as much. How much of his allowance did he save last week?

_____

21. A fabric designer is placing beaded stars on her fabric. She decides to place one star in the middle of every $\frac{1}{3}$ yard. How many beaded stars will she place on 8 yards of fabric?

_____

Remembering

1. Sudian reads 4 pages in 12 minutes. At this rate, how long will it take him to read 6 pages?

   _____

2. Fill in the missing numbers in the rate table. Then plot the ordered pairs and draw a line through the points.

Number of Pounds	Number of Dollars
1	2
2	4
3	
4	
5	
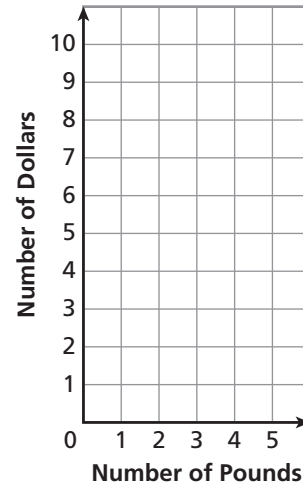
Simplify.

3. $4.45 + 12.8 =$ _____

4. $4.4 \cdot 11.7 =$ _____

5. $41.14 \div 3.4 =$ _____

6. $1\frac{1}{7} + 1\frac{3}{4} =$ _____

7. $2\frac{1}{2} - 1\frac{3}{4} =$ _____

8. $1\frac{5}{9} + 2\frac{1}{3} =$ _____

9. $2\frac{1}{2} \cdot 1\frac{1}{2} =$ _____

10. $\frac{2}{9} \cdot \frac{3}{10} =$ _____

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

12. **Stretch Your Thinking** Xavier is using square tiles to cover a table top. The tiles are $1\frac{1}{2}$ in. on each side. The table top is $7\frac{1}{2}$ inches wide and $13\frac{1}{2}$ inches long. How many tiles does Xavier need to use to cover the whole table? Explain.

   _____

   _____

   _____

Name _____ Date _____

Find the unknown factor in each equation. Then rewrite the multiplication as a division equation.

Multiplication Equation	Related Division Equation
1. $\frac{3}{5} \cdot \boxed{} = \frac{9}{20}$	$\frac{9}{20} \div \frac{3}{5} = \boxed{}$
2. $\frac{5}{6} \cdot \boxed{} = \frac{20}{42}$	
3. $\frac{4}{9} \cdot \boxed{} = \frac{24}{63}$	

Divide.

4. $\frac{8}{28} \div \frac{4}{7} =$ _____

5. $\frac{9}{16} \div \frac{3}{4} =$ _____

6. $\frac{30}{56} \div \frac{5}{8} =$ _____

7. $2\frac{11}{14} \div \frac{3}{7} =$ _____

The products in each multiplication equation are simplified. Find the unknown factor. Then choose a related division equation to solve. Explain your choice.

8. $\frac{5}{6} \cdot$ _____ $= \frac{15}{42} = \frac{5}{14}$ Solve $\frac{15}{42} \div \frac{5}{6} =$ _____ or $\frac{5}{14} \div \frac{5}{6} =$ _____

_____

Draw a diagram, write an equation, and solve.

9. Danielle has a canvas painting that has an area of $\frac{6}{35}$ square meters and a length of $\frac{2}{5}$ meter. What is the width of the painting?

_____

10. Youngshim can kick the soccer ball $\frac{8}{15}$ the length of the play yard. This is $\frac{2}{5}$ of the distance her older brother Minjun can kick the ball. How far can Minjun kick the ball?

_____

Remembering

1. There are 15 pieces in 3 building sets. How many pieces are there in 8 building sets?

_____

2. The unshaded part shows the area of Milia's garden. What is the area of Milia's garden?

_____

5.6 ft

1.3 ft

10.5 ft
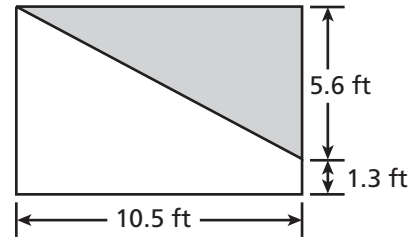
Write equivalent fractions. Then compare, add, and multiply the fractions from left to right. Subtract the lesser fraction from the greater fraction.

3.	$\frac{7}{8}$ $\frac{5}{6}$ →	
4.	>, <	
5.	+	
6.	•	
7.	−	

8.	$\frac{3}{5}$ $\frac{1}{4}$ →	
9.	>, <	
10.	+	
11.	•	
12.	−	

13.	$\frac{5}{8}$ $\frac{7}{10}$ →	
14.	>, <	
15.	+	
16.	•	
17.	−	

18. Sam read 6 books in the time it took his little sister, Faith, to read $\frac{1}{2}$ of a book.

a. Sam read how many times as many books as his sister read? Explain how you found your answer.

_____

b. Sam's sister read how many times as many books as Sam read? Explain how you found your answer.

_____

19. Stretch Your Thinking The difference between two numbers is 5. One number is $\frac{2}{3}$ the other number. What are the two numbers? Explain how you got your answer.

_____

_____

Divide by unsimplifying and dividing numerators and denominators or by multiplying by the reciprocal.

1. $\frac{9}{20} \div \frac{3}{5} =$ _____

2. $\frac{5}{7} \div \frac{6}{11} =$ _____

3. $\frac{2}{3} \div \frac{4}{7} =$ _____

4. $\frac{7}{20} \div \frac{7}{5} =$ _____

5. $\frac{8}{9} \div \frac{2}{3} =$ _____

6. $\frac{2}{5} \div \frac{3}{7} =$ _____

7. $4\frac{2}{5} \div \frac{6}{7} =$ _____

8. $6\frac{3}{10} \div \frac{9}{5} =$ _____

The problems below are solved by unsimplifying and dividing and by multiplying by the reciprocal. Complete the solutions.

9. Unsimplify and Divide Notice that the denominators divide. You need to unsimplify to be able to divide the numerators.

$$\underline{} \div 2 = 1$$

$$\frac{7}{15} \div \frac{2}{5} = \frac{7}{15} \cdot \frac{\boxed{}}{\boxed{}} \div \frac{2}{5} = \frac{7 \cdot \boxed{}}{15 \cdot \boxed{}} \div \frac{2}{5} = \frac{7}{3} \cdot \frac{1}{2} = \frac{\boxed{}}{\boxed{}}$$

$$15 \div 5 = 3$$

Multiply by the Reciprocal of the Divisor

$$\frac{7}{15} \div \frac{2}{5} = \frac{7}{15} \cdot \frac{\boxed{}}{\boxed{}} =$$ _____

10. Unsimplify and Divide Notice that the numerators divide. You need to unsimplify to be able to divide the denominators.

$$21 \div 7 = 3$$

$$\frac{21}{8} \div \frac{7}{5} = \left(\frac{21}{8} \cdot \frac{\boxed{}}{\boxed{}}\right) \div \frac{7}{5} = \frac{21 \cdot \boxed{}}{8 \cdot \boxed{}} \div \frac{7}{5} = \frac{3}{8} \cdot \frac{5}{1} = \frac{\boxed{}}{\boxed{}}$$

$$\underline{} \div 5 = 1$$

Multiply by the Reciprocal of the Divisor

$$\frac{21}{8} \div \frac{7}{5} = \frac{21}{8} \cdot \frac{\boxed{}}{\boxed{}} =$$ _____

Remembering

1. Drake and Troy are building models. For every 10 pieces Drake puts together, Troy puts together 6 pieces. If Troy puts together 18 pieces, how many pieces does Drake put together?

_____

Divide.

2. $23\overline{)56.58}$ 3. $5.4\overline{)187.92}$ 4. $6\overline{)612}$ 5. $8\overline{)49.76}$

Find the unknown factor in each question. Then rewrite the multiplication as a division equation.

6. $\dfrac{8}{9} \cdot \boxed{} = \dfrac{24}{36}$ 7. $\dfrac{5}{11} \cdot \boxed{} = \dfrac{25}{66}$

_____ _____

8. $\dfrac{2}{7} \cdot \boxed{} = \dfrac{10}{49}$ 9. $\dfrac{7}{20} \cdot \boxed{} = \dfrac{21}{100}$

_____ _____

10. **Stretch Your Thinking** Ginny went to the store with a gift card. She spent $\dfrac{2}{5}$ of the amount on her gift card. Then she spent $15 more of the money on the card. Her mom gave her $25 in cash. Then she spent $\dfrac{1}{2}$ of the total amount she had. She had a total of $14 left to spend. How much was on Ginny's gift card? Explain your answer.

_____

_____

_____

Dividing by Unsimplifying

Divide using any method.

1. $\frac{7}{9} \div \frac{4}{9} =$ _____

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

3. $\frac{5}{6} \div \frac{2}{3} =$ _____

4. $\frac{5}{6} \div 7 =$ _____

5. $4 \div \frac{1}{12} =$ _____

6. $4 \div \frac{5}{12} =$ _____

7. $\frac{9}{16} \div \frac{3}{8} =$ _____

8. $\frac{5}{6} \div \frac{1}{7} =$ _____

Solve.

Show your work.

9. Pam's cats Scooter and Max are playing with yarn. Scooter's yarn is $1\frac{2}{3}$ yards long. Max's yarn is $\frac{3}{4}$ yard long. Scooter's yarn is how many times as long as Max's?

_____

10. Mr. Dawson divides $\frac{7}{8}$ pound of raisins between 3 batches of oatmeal muffins. What is the weight of the raisins in each batch?

_____

11. A rabbit pen has an area of $1\frac{1}{2}$ square yards. If the length of the pen is $\frac{2}{3}$ yard, what is its width?

_____

12. Darryl knit a scarf $\frac{3}{5}$ yard long. This is $\frac{2}{3}$ the length of the scarf Hannah knit. How long is Hannah's scarf?

_____

Remembering

1. To make a green paint, Michelle mixes 4 cans of blue paint with 6 cans of yellow paint. She has 24 cans of yellow paint. How many cans of blue paint does she need in order to get the same shade of green?

   _____
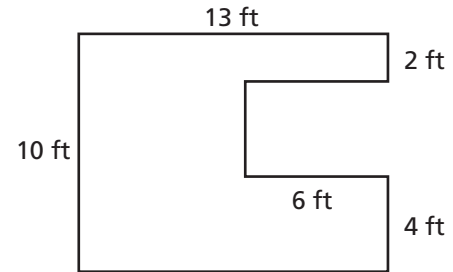
2. Marjory is buying fence for the part of her backyard shown. How much fencing does she need to buy? Marjory is covering the area with river rocks. What area is enclosed by the fence?

   _____

   13 ft
   2 ft
   10 ft
   6 ft
   4 ft

Simplify.

3. $34.9 + 13 =$

4. $17 - 12.8 =$

5. $23 \cdot 38 =$

6. $39.65 \div 6.1 =$

_____ _____ _____ _____

Write equivalent fractions. Then compare, add, multiply, and divide the fractions from left to right. Subtract the lesser fraction from the greater fraction.

7.	$\frac{2}{5}$ $\frac{1}{3}$ →	
8.	>, <	
9.	+	
10.	•	
11.	÷	
12.	−	

13.	$\frac{5}{7}$ $\frac{1}{3}$ →	
14.	>, <	
15.	+	
16.	•	
17.	÷	
18.	−	

19.	$\frac{10}{11}$ $\frac{2}{5}$ →	
20.	>, <	
21.	+	
22.	•	
23.	÷	
24.	−	

25. **Stretch Your Thinking** Ben saved $\frac{3}{4}$ as much each month as he saved the month before. If he saved $45 in March, how much did he save the January before?

   _____

   _____

    Dividing by Multiplying by the Reciprocal

Homework

Will each product or quotient below be greater or less than the first fraction? Circle your prediction, and then find the actual product or quotient to check your prediction.

1. $\frac{4}{5} \div \frac{5}{6}$ Predict: $> \frac{4}{5}$ or $< \frac{4}{5}$

$\frac{4}{5} \div \frac{5}{6} =$ _____

2. $\frac{2}{9} \cdot \frac{3}{4}$ Predict: $> \frac{2}{9}$ or $< \frac{2}{9}$

$\frac{2}{9} \cdot \frac{3}{4} =$ _____

3. $1\frac{3}{4} \cdot \frac{4}{7}$ Predict: $> 1\frac{3}{4}$ or $< 1\frac{3}{4}$

$1\frac{3}{4} \cdot \frac{4}{7} =$ _____

4. $\frac{1}{8} \div \frac{1}{10}$ Predict: $> \frac{1}{8}$ or $< \frac{1}{8}$

$\frac{1}{8} \div \frac{1}{10} =$ _____

Decide if you need to multiply or divide. Then solve.

5. A pitcher contains $1\frac{5}{8}$ quarts of orange juice. How many full cups, each having a $\frac{1}{4}$-quart capacity, can be filled from the pitcher?

_____

6. A bread recipe calls for $1\frac{1}{4}$ cups of wheat flour. A muffin recipe calls for $1\frac{1}{5}$ times this much. How much wheat flour is needed for the muffin recipe?

_____

7. The base (*b*) of a rectangle is $2\frac{1}{4}$ inches and its height (*h*) is $1\frac{3}{8}$ inches. What is the area of the rectangle?

_____

8. A parallelogram has an area (*A*) of $24\frac{4}{5}$ cm² and a height (*h*) of 8 cm. Use the formula $A = bh$ to find the base measure (*b*) of the parallelogram.

_____

Remembering

1. It takes the Cosway family 3 hours to play 5 games. At that rate, how many games could the family play in 9 hours?

   _____

2. Mr. Carbone is painting part of a wall as shown. Each can of paint covers 20 square feet. How many cans of paint does he need to cover the wall?
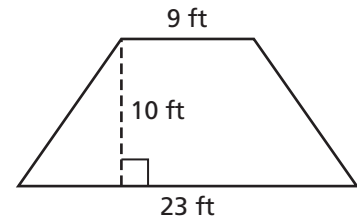
   _____

   9 ft

   10 ft

   23 ft

Write equivalent fractions. Then compare, add, multiply, and divide the fractions from left to right. Subtract the lesser fraction from the greater fraction.

3.	$\frac{2}{9}$ $\frac{1}{3}$ →	
4.	>, <	
5.	+	
6.	•	
7.	÷	
8.	−	

9.	$\frac{1}{4}$ $\frac{7}{10}$ →	
10.	>, <	
11.	+	
12.	•	
13.	÷	
14.	−	

15.	$\frac{5}{7}$ $\frac{3}{5}$ →	
16.	>, <	
17.	+	
18.	•	
19.	÷	
20.	−	

21. Joseph cuts a board that is 3.8 feet long. Justine cuts a board that is 0.5 times as long as Joseph's. How long is Justine's board?

   _____

22. **Stretch Your Thinking** The area of the floor in Hanna's room is $99\frac{3}{7}$ square feet. The area of her kitchen is $1\frac{3}{4}$ the area of her room. If the length of her kitchen is $14\frac{1}{2}$ feet, how wide is the kitchen? Explain how you got your answer.

   _____

   _____

   _____

![Homework]

Solve.   *Show your work.*

1. A large bag of apples weighs $5\frac{1}{2}$ pounds, which is $2\frac{3}{4}$ pounds more than a small bag of apples. What is the weight of a small bag of apples?

   _____

2. Four identical plastic containers are each filled with wheat germ. The total weight of the four containers is $\frac{5}{8}$ pound. What is the weight of each container?

   _____

3. Tim earned $123 for working $7\frac{1}{2}$ hours on Saturday. What amount does Tim earn per hour?

   _____

4. At the beginning of a science experiment, the temperature of a mixture was 19.62°C. At the end of the experiment, the temperature was 81.9°C. By what number of degrees did the temperature increase?

   _____

Simplify.

5. $\frac{3}{10} \div \frac{1}{5} =$ _____

6. $\frac{11}{14} - \frac{3}{7} =$ _____

7. $\frac{7}{8} \cdot \frac{6}{7} =$ _____

8. $\frac{4}{5} \cdot \frac{5}{8} =$ _____

9. $\frac{1}{2} + \frac{2}{3} =$ _____

10. $6 - 3\frac{3}{4} =$ _____

11. $1.4 \cdot 7 =$ _____

12. $24.8 \div 0.8 =$ _____

13. $3.85 + 2.6 =$ _____

14. $5.4 \cdot 7.5 =$ _____

15. $8.1 \div 9 =$ _____

16. $2 - 1.38 =$ _____

Name _____ **Date** _____

Remembering

1. Brendan uses 6 apples and 8 pears to make a fruit salad. If he wants the salad to taste the same, how many pears should he use if he uses 15 apples?

_____

Multiply or divide.

2. $97\overline{)582}$

3. $\begin{array}{r} 45 \\ \times\ 54 \\ \hline \end{array}$

4. $\begin{array}{r} 10.8 \\ \times\ 4.3 \\ \hline \end{array}$

5. $68\overline{)353.6}$

Write equivalent fractions. Then compare, add, multiply, and divide the fractions from left to right. Subtract the lesser fraction from the greater fraction.

6.	$\frac{5}{6}$ $1\frac{1}{6}$ $\rightarrow$	
7.	>, <	
8.	+	
9.	•	
10.	÷	
11.	−	

12.	$\frac{4}{5}$ $\frac{11}{25}$ $\rightarrow$	
13.	>, <	
14.	+	
15.	•	
16.	÷	
17.	−	

18.	$1\frac{1}{4}$ $1\frac{2}{5}$ $\rightarrow$	
19.	>, <	
20.	+	
21.	•	
22.	÷	
23.	−	

Solve.

24. **Stretch Your Thinking** Ryan keeps his hamster cage on his dresser. The area of the top of Ryan's dresser is $1\frac{2}{3}$ as large as the area of the bottom of his hamster cage. The area of the dresser top is 960 square inches. How many square inches of his dresser top are not covered by the hamster cage? Explain how you got your answer.

_____

_____

_____

_____

Mixed Practice

1. Choose a stock from the listings in a newspaper or from an Internet search. Write the name of the company you choose, and the most recent price for a share of the company's stock.

   _____

2. Suppose you purchase 250 shares of the company's stock. Calculate the cost of your purchase.

   _____

3. Record the price of one share of the stock you purchased in the *Day 1* column of the table below. Then, each day for the next four business days, find that day's price and record it in the table.

Company Name	Day 1 Price	Day 2 Price	Day 3 Price	Day 4 Price	Day 5 Price

4. Calculate the change in price. Write whether the change is an *increase* or a *decrease*.

   a. from Day 1 to Day 2 _____

   b. from Day 2 to Day 3 _____

   c. from Day 3 to Day 4 _____

   d. from Day 4 to Day 5 _____

5. Did the price per share increase or decrease over the five-day period? By what amount did it increase or decrease?

   _____

6. Suppose you sell your shares at the end of the five days. Write the price per share at that time, and calculate the amount of money you should receive for selling 250 shares. Did you earn a profit, or lose money?

   _____

   _____

Remembering

1. It takes 4 pitchers of juice to fill 12 cups. How many pitchers does it take to fill 18 cups?

   _____

2. The diagram represents a township. The town council is planning a nature preserve in the portion of the township that is not shaded. What is the planned area of the preserve?
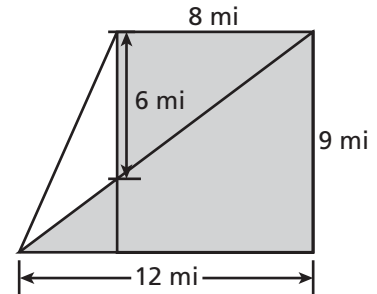
   _____

Write equivalent fractions. Then compare, add, multiply, and divide the fractions from left to right. Subtract the lesser fraction from the greater fraction.

3.	$\frac{3}{4}$ $\frac{2}{5}$ →	
4.	>, <	
5.	+	
6.	•	
7.	÷	
8.	−	

9.	$\frac{7}{9}$ $\frac{4}{5}$ →	
10.	>, <	
11.	+	
12.	•	
13.	÷	
14.	−	

15.	$\frac{1}{4}$ $\frac{3}{8}$ →	
16.	>, <	
17.	+	
18.	•	
19.	÷	
20.	−	

Solve.

21. Jeff ran 3.25 miles. Trish ran 5.85 miles. How many times Jeff's distance did Trisha run?

    _____

22. Linda bicycled 1.3 miles. If she bicycles 3.8 more miles, she will arrive at the store. How many miles is it to the store?

    _____

23. **Stretch Your Thinking** Baily's necklace has $\frac{2}{3}$ the number of beads as Jerry's necklace. Julie's necklace has $1\frac{3}{5}$ the number of beads as Baily's necklace. If Baily's necklace has 40 beads, whose necklace has the most beads? Explain your answer.

    _____

Focus on Mathematical Practices