Name _____

Set A pages 99–104

Estimate 37 × 88.

Step 1

Round both factors.

37 is about 40 and 88 is about 90.

Step 2

Use mental math and multiply the rounded factors.

40 × 90 = 3,600

Remember to either round the factors or use compatible numbers.

Estimate each product.

1. 7 × 396
2. 17 × 63
3. 91 × 51
4. 70 × 523
5. 256 × 16
6. 45 × 806
7. 27 × 89
8. 8 × 415

Set B pages 105–110

A store received a shipment of 38 TVs valued at $425 each. What is the total value of the shipment? Find 425 × 38.

Step 1
Multiply the ones.

$$\begin{array}{r} \overset{2\,4}{425} \\ \times\ \ \ 38 \\ \hline 3400 \end{array}$$

Step 2
Multiply the tens.

$$\begin{array}{r} \overset{1}{425} \\ \times\ \ \ 38 \\ \hline 3400 \end{array}$$

Step 3
Add the partial products.

$$\begin{array}{r} 425 \\ \times\ \ \ 38 \\ \hline 3400 \\ 12750 \\ \hline 16,150 \end{array}$$

Remember to regroup if necessary. Estimate to check that your answer is reasonable.

Find each product.

1. 54 × 9
2. 92 × 6
3. 67 × 48
4. 81 × 19
5. 51 × 605
6. 32 × 871

Set C pages 111–116

Find 53 × 406.
Estimate: 50 × 400 = 20,000

Multiply the ones. Multiply the tens. Then add the partial products.

$$\begin{array}{r} \overset{3}{\overset{1}{406}} \\ \times\ \ \ 53 \\ \hline 1218 \longleftarrow 3 \times 406 \\ +\ 20300 \longleftarrow 50 \times 406 \\ \hline 21,518 \end{array}$$

Remember to add any regrouped numbers after multiplying by zero.

Find each product.

1. 34 × 108
2. 76 × 504
3. 47 × 302
4. 83 × 206

5.
$$\begin{array}{r} 604 \\ \times\ \ 55 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 708 \\ \times\ \ 94 \\ \hline \end{array}$$

Write an equation that represents the problem. Then solve the problem.

On Tuesday a theater sold 309 tickets. Each ticket cost $29. How much money did the theater make from the sale of the tickets?

$309 \times \$29 = n$

$n = \$8,961$

The theater made $8,961.

Remember to estimate to check that your answer is reasonable.

Write an equation that represents the problem. Then solve.

The first 15 rows of an auditorium have 108 seats in each row. How many seats are there in all?

Decide whether an exact answer is needed or an estimate is enough.

Don made hotel reservations. The room costs $128 each night. How much is Don's hotel bill if he stays for 12 nights?

The hotel needs to know exactly how much Don has to pay, so an exact answer is needed.

$\$128 \times 12 = 1,536$

Don's hotel bill is $1,536.

Remember When you are asked to find total costs and amounts of change, an exact answer is usually required.

Decide whether an exact answer is needed or an estimate is enough.

1. A freight elevator can hold up to 5,000 pounds. Jackson wants to load 28 boxes onto the elevator. Each box weighs 150 pounds. Is the total weight of all the boxes under the elevator weight limit?

Use the patterns in this table to find 8.56×10 and 0.36×100.

DATA Multiply by	Move the decimal point to the right
10	1 place
100	2 places
1,000	3 places

$8.56 \times 10 = 85.6 = 85.6$

$0.36 \times 100 = 36.0 = 36$

Remember when you need to move the decimal point beyond the number of digits in the number you are multiplying, you can annex one or more zeros.

Use mental math to solve 1 and 2. Estimate the products of 3 and 4.

1. 10×4.5

2. $1,000 \times 4.5$

3. 24×3.67

4. 8×56.7

Name _____

Set G pages 141–146 and 147–152

Find 52.5 × 1.9 Estimate: 50 × 2 = 100

Step 1

Multiply as you would with whole numbers.

$$\begin{array}{r} 525 \\ \times\ 19 \\ \hline 9975 \end{array}$$

Step 2

Since 1.9 is greater than 1, the product will be greater than 52.5. Since 1.9 is about 2, the decimal point should be between the 9 and the 7.

So, 52.5 × 1.9 = 99.75

$$\begin{array}{r} 52.5 \\ \times\ 1.9 \\ \hline 99.75 \\ \uparrow \end{array}$$

Remember to compare each factor to 1 in order to determine the relative size of the product. Use area models or arrays if necessary.

Find each product.

1. 5 × 98.2

2. 4 × 0.21

3. 4.4 × 6

4. 7 × 21.6

5. 12.5 × 163.2

6. 16 × 52.3

7. 0.8 × 0.1

8. 0.05 × 0.4

9. 6.4 × 3.2

10. 315 × 0.01

Set H pages 153–158

Find 12 × 0.15.

Step 1

Multiply as you would with whole numbers.

$$\begin{array}{r} 12 \\ \times\ 0.15 \\ \hline 60 \\ +\ 120 \\ \hline 180 \end{array}$$

Step 2

Count the decimal places in both factors. Then, place the decimal point in the product the same number of places from the right.

So, 12 × 0.15 = 1.8.

$$\begin{array}{r} 12 \\ \times\ 0.15 \quad \text{2 places} \\ \hline 60 \\ +\ 120 \\ \hline 1.80 \end{array}$$

Remember to count the decimal places in both factors before you place the decimal point in the product.
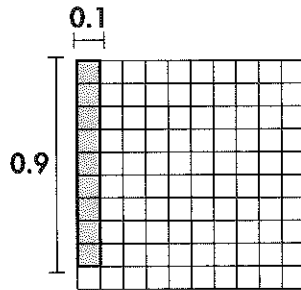
Find each product.

1. 50 × 3.67

2. 5.86 × 5

3. 14 × 9.67

4. 8 × 56.7

5. 11 × 0.06

6. 2.03 × 6

7. 25 × 1.63

8. 5.62 × 75

Set I pages 159–164 and 165–170

Find 0.9 × 0.1

0.1

Shade the area created by the factors on a . hundredths grid. Count the squares to find the product.

0.9

So 0.9 × 0.1 = 0.09

Remember to use area models and arrays to help you find the product if needed.

Find each product.

1. 2.4×3.6

2. 5.8×5.2

3. 8.3×10.7

4. 3.42×4.5

5. 1.4×6.7

6. 11.2×9.7

7. 23.3×60.5

8. 9.2×67.5

Set J pages 171–176

Ami wants to buy 2 tickets to a ballgame. Each ticket costs $28.75. Ami has $60.00. Is that enough money to buy tickets?

Find the total cost of the tickets.

$28.75 × 2 = $57.50

Determine whether she has enough money.

$60.00 > $57.50

Ami has enough money to buy the tickets.

Remember Check that your answer is reasonable by estimating.

Solve.

1. Selma is buying 3.5 pounds of grapes. Each pound costs $1.80. How much money does Selma spend?

2. Jeff buys 2 sandwiches for $3.95 each and 3 drinks for $1.25 each. He pays for the food with a $20-bill. How much change does he receive?

Set K pages 177–182
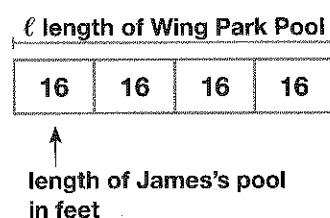
Draw a picture and write an equation. Solve.

The length of James's pool is 16 ft. The length of the pool at Wing Park is 4 times as long. How long is the pool at Wing Park?

Let ℓ = the length of Wing Park pool.

ℓ length of Wing Park Pool			
16	16	16	16

length of James's pool in feet

$16 \times 4 = \ell$
$\ell = 64$ ft

The length of Wing Park pool is 64 ft.

Remember that a picture can help you visualize an equation.

Solve.

1. Mia has a collection of 34 dolls. A toy store has 15 times as many dolls. How many dolls are in the store?

2. Lea takes 23 surveys at school. She needs to take twice this amount before the end of the week. How many more surveys does Lea need to take?

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