ML7 pg. 57/58

Communicate the Ideas

1. Fancy ribbon sells for $3.20 per metre. You want to buy 2.6 m of the ribbon for a dance costume.
   a) Use front-end estimation and one other estimation technique to help find both an underestimate and an overestimate of the cost of the ribbon.
   b) Which would be a better estimate of the cost, an underestimate or an overestimate? Explain why.
   c) Show how to calculate the actual cost of the ribbon.

2. Michael was putting the decimal in the answer to a multiplication question.

   $2.5 \times 4.6 = 115$

   He placed the decimal between the two 1s: 1.15. He said that the answer should show hundredths because you are multiplying tenths by tenths. Is his answer correct? Explain your thinking.

Practise

For help with #3 and #4, refer to Example 1 on page 53.

Choose 1

3. Without calculating the answer, place the decimal point in the correct position. Show your thinking.
   a) $6.8 \times 12.2 = 8296$
   b) $48.6 \times 0.9 = 4374$

M E

4. Without calculating the answer, place the decimal point in the correct position. Show your thinking.
   a) $4.7 \times 8.8 = 4136$
   b) $11.2 \times 3.4 = 3808$

M E

For help with #5 and #6, refer to Example 2 on pages 54–55.

Choose 1

5. Estimate and then calculate.
   a) 1.75×3
   b) 12.8×0.2
   c) 396×1.5
   d) 13.8×2.5

6. Estimate and then calculate.
   a) 68×3.5
   b) 3.6×2.7
   c) 270×0.1
   d) 46×8.5

For help with #7 and #8, refer to Example 3 on page 56.

7. Estimate and then use a calculator to determine each answer.

a) 3.89×565

b) $\$13.45 \times 478$

c) 7.05×2.24

8. Estimate and then use a calculator to determine each answer.

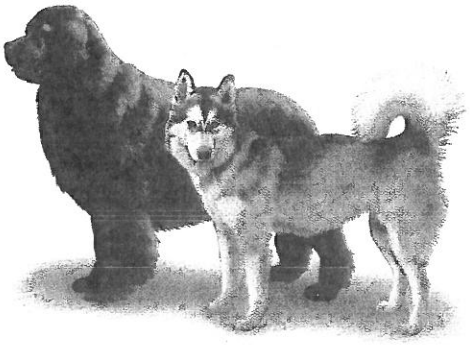
a) $\$4.49 \times 194$

b) 2.75×2.62

c) 73.9×25.3

Apply

9. An Alaskan malamute dog has a mass of 39 kg. A Newfoundland dog has a mass 1.8 times that amount. What is the mass of the Newfoundland dog?



10. The cost of tickets for a concert was $16.75. The number of tickets sold for a performance was 468. How much money was collected on ticket sales?

11. Renata runs 5.7 km per day. How far will she run in the month of January?

12. An electrical contractor charges $65 per hour. How much does he earn when he works for 4.75 h?

13. $32 \times 86 = 2752$. Use what you know about place values to find each of the following products without multiplying.

a) $3.2 \times 86 =$ ■

b) $32 \times 8.6 =$ ■

c) $0.32 \times 86 =$ ■

d) $0.32 \times 8.6 =$ ■

e) $3.2 \times 8.6 =$ ■

14. Copy and complete the following pattern. Then describe how the position of the decimal point changes.

$3 \times 100 =$ ■

$3 \times 10 =$ ■

$3 \times 1 = 3$

$3 \times$ ■ $= 0.3$

$3 \times$ ■ $= 0.03$

$3 \times 0.001 =$ ■

15. **a)** Copy and complete each multiplication statement.

$4.65 \times 10 =$ ■

$37 \times 100 =$ ■

$0.58 \times 1000 =$ ■

b) When multiplying by a number greater than 1, should the answer be larger or smaller than the original number?

c) Write a rule that describes how to multiply by 10, 100, or 1000.

16. **a)** Copy and complete each multiplication statement.

$3.0 \times 0.1 =$ ■

$4.5 \times 0.01 =$ ■

$0.345 \times 0.001 =$ ■

b) When multiplying by a number less than 1, should the answer be larger or smaller than the original number?

c) Write a rule that describes how to multiply by 0.1, 0.01, or 0.001.