Chapter Review

Frequently Asked Questions

Q: **How can you estimate the quotient when you divide a decimal by a one-digit whole number?**

A1: You can use a nearby whole number to estimate the decimal and then divide the whole numbers. Choose a whole number that divides evenly.

For example, $33.452 \div 8$ is about $32 \div 8$, which is 4.

A2: You can use a nearby decimal that is easier to divide.

For example, $1.5 \div 8$ is 15 tenths $\div$ 8. You can estimate the quotient using 16 tenths $\div 8 = 2$ tenths, which is 0.2.

Q: **How can you divide a decimal by a one-digit whole number?**

A1: You can model the decimal using base ten blocks. Decide which block will represent 1. Then divide the blocks equally into the number of groups needed.

For example, to divide 1.45 by 5, model with a large block representing 1 and trade where necessary. Then you can see that $1.45 \div 5 = 0.29$.

$1 \div 5 \rightarrow$
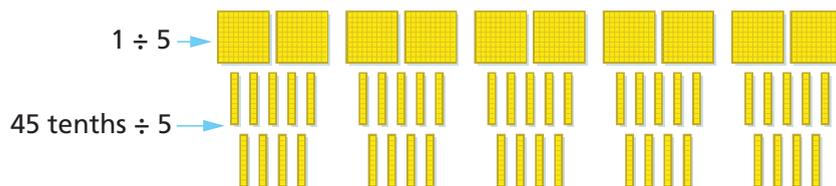
45 tenths $\div 5 \rightarrow$

A2: You can rename the decimal as a whole number of tenths, hundredths, or thousandths. You divide the whole numbers and then adjust the answer.

For example, for $1.25 \div 5$,
125 hundredths $\div 5 = 25$ hundredths, or 0.25.

Practice

1. Each product is missing a decimal point. Describe where the decimal point should be placed. Explain one answer.
   a) $4.239 \times 6 = 25434$
   b) $12.78 \times 8 = 10224$

2. Estimate the cost. Explain your thinking.
   a) four rolls of tape if one roll costs $1.29
   b) five erasers if one eraser costs $0.79

3. Seven friends bought bubble tea for $3.99 each. How much did they spend altogether? Explain your thinking.

4. a) What whole number multiplication can you use to help you figure out 6×4.9?
   b) How would it help?

5. Predict which products are between 20 and 25. How do you know?
   a) 5×4.572 c) 6×3.58
   b) 8×2.971 d) 7×3.97

6. Calculate each product. Show your work.
   a) 7×1.7 c) 4×2.37
   b) 5×0.13 d) 3×1.624

7. Explain how you know that $4 \times 2.55 = 2 \times 5.1$ without calculating the product.

8. a) A car travels 1.2 km in 1 min. At the same speed, how far would the car go in 6 min?
   b) How do you know your answer is reasonable?

9. Rhea exchanged $9 in Canadian money for U.S. money. The value of each Canadian dollar was $0.99 U.S. when she exchanged the money. How many U.S. dollars did Rhea get? Explain.
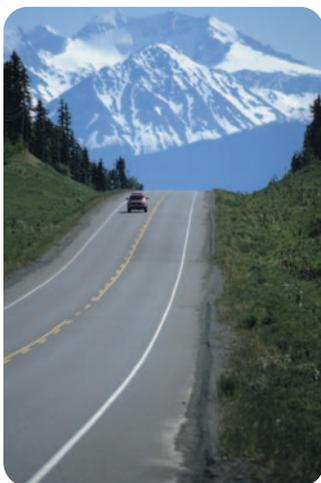
Lesson 4

10. Each quotient is missing a decimal point. Determine where the decimal point should be placed.
  a) 27.48 ÷ 6 = 458
  b) 211.05 ÷ 9 = 2345

11. Estimate. Explain how you estimated for one answer.
  a) 123.75 ÷ 7   **b)** 35.45 ÷ 9

Lesson 6

12. Calculate the mass of each bag.
  a) 15.00 kg divided equally into four bags
  b) 14.00 kg divided equally into eight bags
  c) 3.00 kg divided equally into four bags

13. A three-pack of DVD cases costs $5.67, and a five-pack costs $9.10.
  a) What is the cost of one case in each pack? Show your work.
  b) How much money would you save on each DVD case by buying the less expensive cases?

14. Copy the division expression below. Replace each ■ with one of the digits 2, 0, 4, 5, and 6 and try to make the greatest possible quotient. How do you know it is the greatest possible quotient?

  ■.■■■ ÷ ■
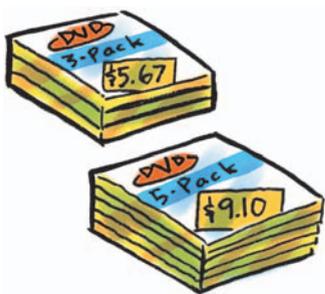
Lesson 7

15. James bought two bags of sand. Both bags contained the same amount of sand. Then James divided the sand equally into three pails. The mass of the sand in each pail was 9.126 kg. What was the original mass of the sand in each bag? Show your work.

What Do You Think Now?

Look back at **What Do You Think?** on page 291. How have your answers and explanations changed?