

C O N T E N T S

GRADE 6

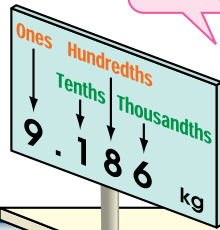
1.	Operations with Whole Numbers	2
2.	Brackets.....	8
3.	Integers.....	10
4.	Multiples and Factors.....	12
5.	Composite and Prime Numbers	16
6.	Time, Speed, and Distance.....	20
7.	Perimeter and Area	24
8.	2-D Shapes and 3-D Figures	28
	Midway Test	32
9.	Volume and Mass.....	38
10.	Operations with Decimals.....	40
11.	Operations with Fractions	44
12.	Fractions, Decimals, and Percents.....	48
13.	Rate and Ratio	52
14.	Patterns and Simple Equations.....	56
15.	Transformations and Coordinates.....	60
16.	Graphs and Probability	62
	Final Test	66
	Answers	73

WORDS TO LEARN

Decimal - a numeral containing a decimal point with the value of digits to the right of the decimal point being less than 1

The dog weighs about 9.19 kg.

I weigh 9 and 186 thousandths kilograms.



Expanded form:
 $9.186 = 9 + 0.1 + 0.08 + 0.006$

Write the decimals in expanded form and in words.

① **45.619** In expanded form: _____

In words: _____

② **60.202** In expanded form: _____

In words: _____

Find the answers.

③
$$\begin{array}{r} 6.8 \\ - 2.549 \\ \hline \end{array}$$

④
$$\begin{array}{r} 3.175 \\ + 0.856 \\ \hline \end{array}$$

⑤
$$\begin{array}{r} 4.017 \\ - 3.85 \\ \hline \end{array}$$

⑥ $9.14 + 2.889 =$ _____ ⑦ $3.46 - 0.875 =$ _____

⑧ $4.06 - 3.451 =$ _____ ⑨ $7.07 + 1.864 =$ _____

⑩ If Susan weighs 28.64 kg, her cat weighs _____ kg.

⑪ If Susan's cat gains 0.524 kg, it will weigh _____ kg.

32.887 kg



Find the products or quotients mentally.

- ⑫ $2.623 \times 100 = \underline{\hspace{2cm}}$ ⑬ $3.88 \div 10 = \underline{\hspace{2cm}}$
 ⑭ $89.4 \div 100 = \underline{\hspace{2cm}}$ ⑮ $0.767 \times 100 = \underline{\hspace{2cm}}$
 ⑯ $5.051 \times 10 = \underline{\hspace{2cm}}$ ⑰ $305.4 \div 100 = \underline{\hspace{2cm}}$
 ⑱ $6.25 \div 100 = \underline{\hspace{2cm}}$ ⑲ $1 \div 1000 = \underline{\hspace{2cm}}$

Multiply - move the • to the right
 Divide - move the • to the left

$2.93 \times 100 = 293$
 Move it 2 places to the right.

Help Mrs. Martin solve the problems.

⑳ How much do 2.6 kg of apples cost?

0	.	9	5	← 2 decimal places	
x		2	.	6	← 1 decimal place
		5	7	0	
		1	9	0	0
				← 3 decimal places	

2.6 kg of apples cost \$.

- ⑳ $4.2 \times 0.6 = \underline{\hspace{2cm}}$ ㉑ $3.25 \times 0.8 = \underline{\hspace{2cm}}$ ㉒ $4.668 \times 3 = \underline{\hspace{2cm}}$

- ㉓ $6.27 \times 1.8 = \underline{\hspace{2cm}}$ ㉔ $3.5 \times 2.66 = \underline{\hspace{2cm}}$
 ㉕ $4.15 \times 6.3 = \underline{\hspace{2cm}}$ ㉖ $10.2 \times 3.17 = \underline{\hspace{2cm}}$
 ㉗ $8.06 \times 1.4 = \underline{\hspace{2cm}}$ ㉘ $2.19 \times 8.5 = \underline{\hspace{2cm}}$
 ㉙ 3.8 kg of apples cost \$ (correct to 1 decimal place).
 ㉚ 4.7 kg of mangoes cost \$ (correct to 2 decimal places).
 ㉛ 1.5 kg of mangoes cost \$ (correct to 2 decimal places).



Follow Elaine's method to do the division.

- ③ Elaine wants to cut a 0.75-m long ribbon into strips of 0.15 m each. How many strips can she get?

$$\begin{aligned} 0.75 \div 0.15 &= \frac{0.75}{0.15} \\ &= \frac{0.75 \times 100}{0.15 \times 100} \end{aligned}$$

$$= \overline{15}$$

$$= \underline{\hspace{2cm}}$$

Multiply the dividend and the divisor by 10, 100, or 1000 to make the divisor a whole number first.

$$15 \overline{) 75}$$

She can get strips.

$$\begin{aligned} &0.48 \div 0.2 \quad \leftarrow 1 \text{ decimal place} \\ &= \frac{0.48 \times 10}{0.2 \times 10} \\ &= \frac{4.8}{2} \\ &= 2.4 \end{aligned}$$

④ $32.4 \div 0.4$

$$= \frac{32.4 \times \hspace{1cm}}{0.4 \times \hspace{1cm}}$$

$$= \frac{\hspace{2cm}}{4}$$

$$= \underline{\hspace{2cm}}$$

$$4 \overline{) \hspace{2cm}}$$

⑤ $1.6 \div 0.08$

$$= \frac{1.6 \times \hspace{1cm}}{0.08 \times \hspace{1cm}}$$

$$= \frac{\hspace{2cm}}{8}$$

$$= \underline{\hspace{2cm}}$$

$$8 \overline{) \hspace{2cm}}$$

⑥ $8.85 \div 0.05 = \underline{\hspace{2cm}}$

⑦ $3.45 \div 0.23 = \underline{\hspace{2cm}}$

⑧ $0.221 \div 1.3 = \underline{\hspace{2cm}}$

⑨ $29.45 \div 1.9 = \underline{\hspace{2cm}}$

⑩ $16.74 \div 2.7 = \underline{\hspace{2cm}}$

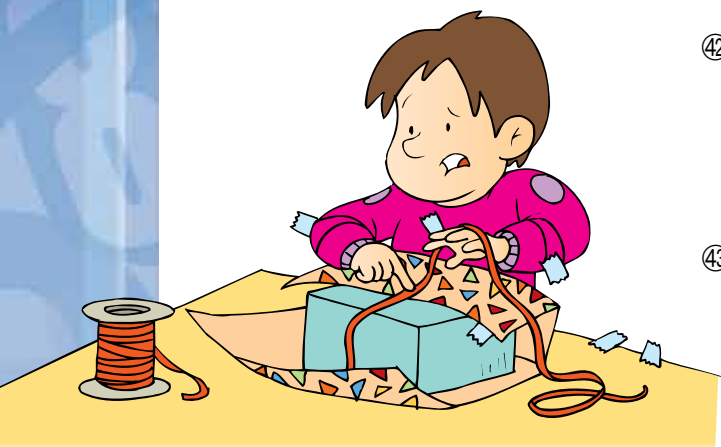
⑪ $12.18 \div 0.87 = \underline{\hspace{2cm}}$

- ⑫ Each roll of ribbon costs \$0.95. How many rolls of ribbon can Tony buy with \$17.10?

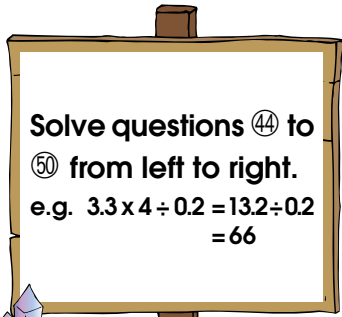
 rolls of ribbon

- ⑬ 1.5 m of ribbon is needed to tie a gift box. How many gift boxes can be tied with 13.5 m of ribbon?

 gift boxes



Find the answers.



- ④④ $3.2 + 1.4 - 0.58 = \underline{\hspace{2cm}}$
- ④⑤ $6.4 \div 0.4 \times 1.3 = \underline{\hspace{2cm}}$
- ④⑥ $3.84 - 1.765 + 2.339 = \underline{\hspace{2cm}}$
- ④⑦ $6.447 + 1.385 - 2.608 = \underline{\hspace{2cm}}$
- ④⑧ $3.5 \times 1.9 \div 0.5 = \underline{\hspace{2cm}}$
- ④⑨ $8.91 \div 2.7 \times 1.44 = \underline{\hspace{2cm}}$
- ④⑩ $17.8 \times 4.2 \div 2.8 = \underline{\hspace{2cm}}$

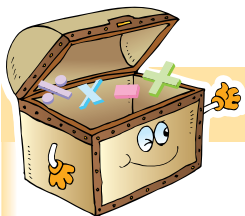
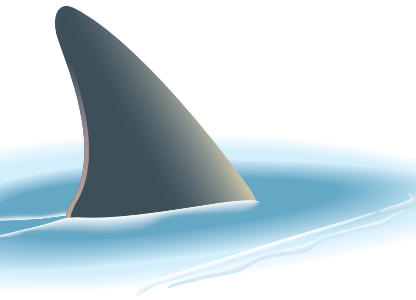


Solve the problems.

- ⑤① A boat covered a distance of 32.8 km in 1 h. It will cover _____ km in 2.4 h.
- ⑤② Peter travelled 3.258 km on Monday and 4.165 km on Tuesday. He travelled _____ km in the past two days.
- ⑤③ Sister Shark weighs 68.259 kg. If Sister Shark is 6.84 kg lighter than Brother Shark, Brother Shark weighs _____ kg.

⑤④ Brother Shark can swim 96.6 km in 1.5 h. He can travel _____ km in 1 h.

⑤⑤ Sister Shark is 0.87 m long. If Brother Shark is 1.2 times as long as Sister Shark, he is _____ m long.



A C T I V I T Y

Work out the answers mentally.

- ① $23.5 \div 23.5 + 1 = \underline{\hspace{2cm}}$ ② $12.14 \div 2 \times 2 = \underline{\hspace{2cm}}$
- ③ $382.4 \times 0 + 5.3 = \underline{\hspace{2cm}}$ ④ $1 \times 8.86 \div 1 = \underline{\hspace{2cm}}$
- ⑤ $6.65 - 6.65 + 3.4 = \underline{\hspace{2cm}}$ ⑥ $8.04 \times 1 - 8.04 = \underline{\hspace{2cm}}$

