ORIGO

STEPPING STONES

SAMPLE PAGES

CORE MATHEMATICS

SENIOR AUTHORS

James Burnett

Calvin Irons

CONTRIBUTING AUTHORS

Debi DePaul

Peter Stowasser

Allan Turton

PROGRAM EDITORS

James Burnett

Beth Lewis

Donna Richards

Stacey Lawson

ORIGO EDUCATION

PRACTICE BOOK

1. Double and halve to make a problem that is easier to solve. Then write the answer.

a. 15 × 16

____ × ____

____ × ____

15 × 16 = ____

b. 36 × 25

____ × ____

____ × ____

36 × 25 = ____

c. 35 × 12

____ × ____

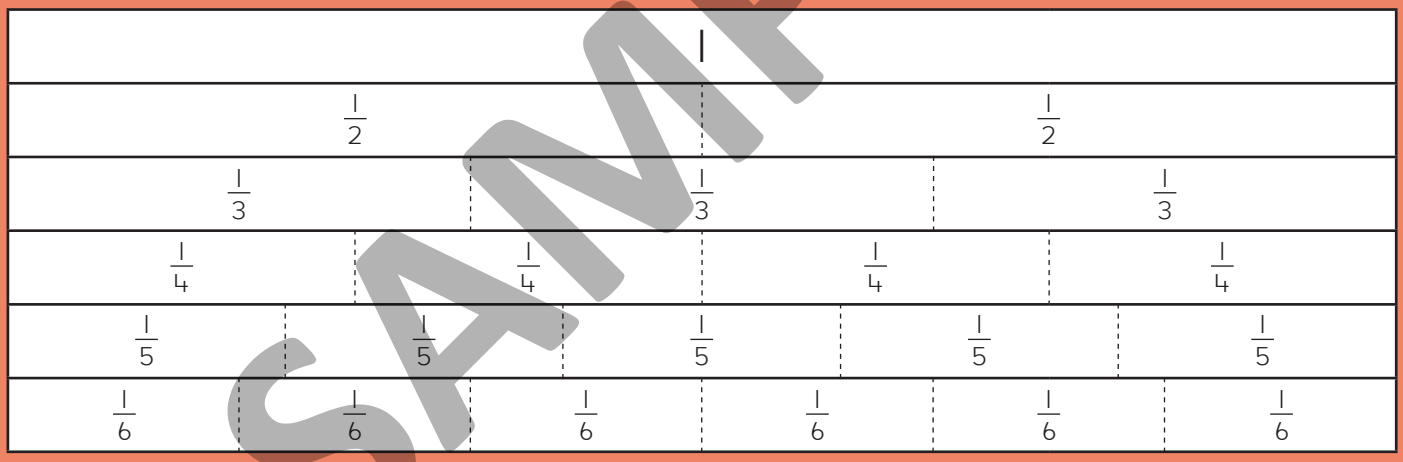
____ × ____

35 × 12 = ____

2. Loop the **greater** fraction in each pair. Use the fraction wall to help.

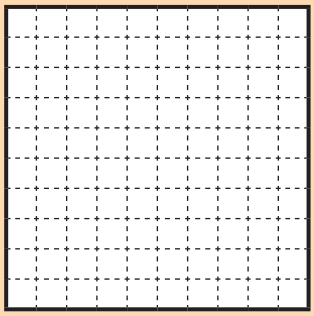
$\frac{1}{3}$ or $\frac{1}{2}$ | $\frac{1}{4}$ or $\frac{1}{3}$ | $\frac{1}{2}$ or $\frac{1}{4}$ | $\frac{1}{3}$ or $\frac{1}{5}$

$\frac{1}{6}$ or $\frac{1}{2}$ | $\frac{1}{4}$ or $\frac{1}{6}$ | $\frac{1}{3}$ or $\frac{1}{5}$ | $\frac{1}{6}$ or $\frac{1}{5}$



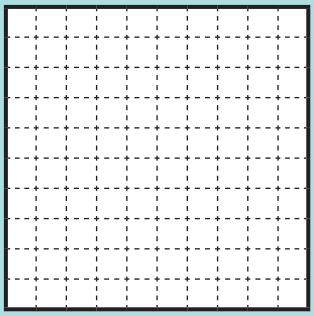
3. Colour parts to show the decimal fraction. Then write the matching common fraction.

a.



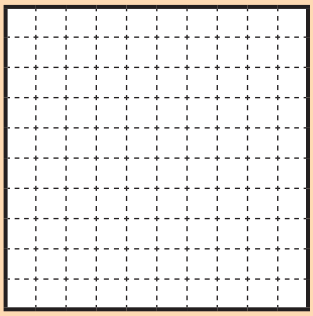
0.09 is the same as ____

b.



0.19 is the same as ____

c.



0.9 is the same as ____

FUN FACT

★ Work out each of these and write the answer. Write each letter above its matching answer at the bottom of the page. Some letters appear more than once.

170 + 38 =		e	309 + 38 =		o
253 − 67 =		g	250 − 75 =		f
47 + 263 =		h	38 + 254 =		a
180 − 73 =		n	430 − 210 =		l
327 + 39 =		t	136 + 27 =		r
344 − 214 =		p	522 − 431 =		i
35 + 242 =		c	52 + 327 =		u
460 − 89 =		s	340 + 55 =		m
158 + 95 =		z			

___	___	___	___	___	___	___	___	___	___	___
227	310	91	395	130	292	107	253	208	208	371

___	___	___	___	___	___	___	___	___	___	___
371	220	208	208	130	175	347	163	366	208	107

___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
310	347	379	163	371	208	292	277	310	107	91	186	310	366	

1. Read the number name. Then write the matching numeral.

a. five million, twelve thousand, one hundred and sixty-two _____

b. seven million, five hundred and six thousand, two hundred and fifteen _____

c. one million, four hundred and nine thousand _____

d. nine million, one hundred and seventy-one thousand, four hundred and forty-eight _____

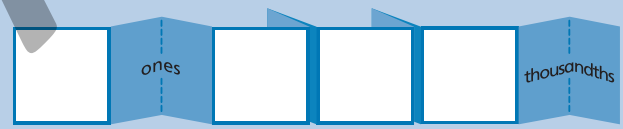
e. six million, twenty thousand, nine hundred and one _____

2. Loop the fraction that is **greater** in each pair.

a. $\frac{12}{6}$ or $\frac{10}{6}$	**b.** $\frac{7}{6}$ or $\frac{1}{6}$	**c.** $\frac{2}{5}$ or $\frac{3}{5}$	**d.** $\frac{8}{3}$ or $\frac{10}{3}$
e. $\frac{12}{4}$ or 4	**f.** $\frac{4}{6}$ or $\frac{5}{6}$	**g.** $\frac{4}{5}$ or 1	**h.** $\frac{19}{5}$ or $\frac{14}{5}$
i. $\frac{8}{2}$ or $\frac{5}{2}$	**j.** 2 or $\frac{19}{12}$	**k.** $\frac{1}{7}$ or $\frac{4}{7}$	**l.** $\frac{9}{3}$ or 2

3. Write the matching decimal fraction with and without the expander.

a. three and nine hundred thousandths

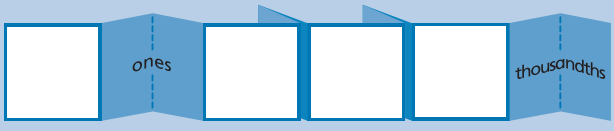


_____

b. five and seven hundred and twenty thousandths

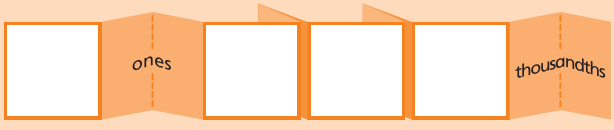
_____

c. six and four hundred and nineteen thousandths



_____

d. five and one-thousandth

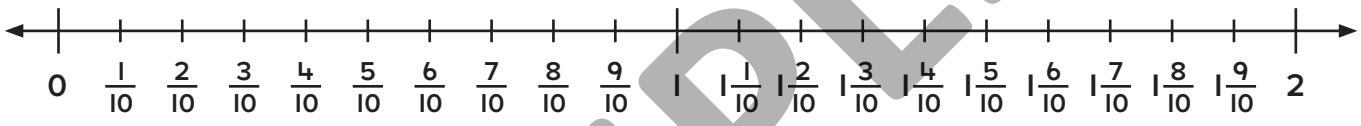


_____

1. Use ones blocks to cover the area of this rectangle. Then complete the table.

Dimensions of the base of the prism (cm)	Number of layers	Volume (cm^3)
×	1	
×	2	
×	3	
×	4	

2. Use this number line to help you write the answers below.



a. $\frac{3}{10} + \frac{6}{10} =$ ____

b. $\frac{7}{10} + \frac{2}{10} =$ ____

c. $\frac{1}{10} + \frac{4}{10} =$ ____

d. $\frac{9}{10} + \frac{5}{10} =$

e. $1\frac{2}{10} + \frac{6}{10} =$

f. $\frac{8}{10} + 1\frac{3}{10} =$

g. $\frac{7}{10} + \frac{8}{10} =$

h. $\frac{3}{10} + 1\frac{9}{10} =$

i. $1\frac{7}{10} + \frac{6}{10} =$

3. For each number, draw a line to show where you think it is located on the number line. Then write the **nearest tenth**.

a. 0.21 ____

b. 0.435 ____

c. 0.97 ____

d. 1.08 ____

e. 1.49 ____

f. 1.905 ____

ANOTHER AMAZING FACT

★ Work out each of these and write the product. Then write each letter above its matching product at the bottom of the page. Some letters appear more than once.

4 × 45 = _____	t	8 × 45 = _____	e
6 × 35 = _____	s	4 × 35 = _____	l
6 × 65 = _____	f	6 × 85 = _____	y
4 × 55 = _____	h	8 × 65 = _____	a
8 × 55 = _____	i	4 × 65 = _____	n
6 × 45 = _____	m	8 × 35 = _____	o
6 × 75 = _____	b		

___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
520	450	520	180	440	210	180	220	360	280	260	140	510	270	520
___	___	___	___	___	___	___	___	___	___	___	___	___	___	___
270	270	520	140	180	220	520	180	390	140	440	360	210		

1. Complete the parts. Then write the quotient.

a. 216 ÷ 3 = ____

is the same as

____ ÷ 3 **plus** ____ ÷ 3

b. 129 ÷ 3 = ____

is the same as

____ ÷ 3 **plus** ____ ÷ 3

c. 155 ÷ 5 = ____

is the same as

____ ÷ 5 **plus** ____ ÷ 5

d. 288 ÷ 4 = ____

is the same as

____ ÷ 4 **plus** ____ ÷ 4

2. Write each whole number as a fraction. Use what you know about multiples to help you.

a. 1 = $\frac{\quad}{2}$ 2 = $\frac{\quad}{2}$ 3 = $\frac{\quad}{2}$ 4 = $\frac{\quad}{2}$ 5 = $\frac{\quad}{2}$

b. 1 = $\frac{\quad}{3}$ 2 = $\frac{\quad}{3}$ 3 = $\frac{\quad}{3}$ 4 = $\frac{\quad}{3}$ 5 = $\frac{\quad}{3}$

c. 1 = $\frac{\quad}{4}$ 2 = $\frac{\quad}{4}$ 3 = $\frac{\quad}{4}$ 4 = $\frac{\quad}{4}$ 5 = $\frac{\quad}{4}$

3. Work out the total distance for each of these.

a. 3.2 km + 4.5 km = ____ km

b. 5.1 km + 2.7 km = ____ km

c. 2.6 km + 1.3 km = ____ km

d. 2.3 km + 6.4 km = ____ km

e. 4.5 km + 2.4 km = ____ km

f. 4.6 km + 2.2 km = ____ km

g. 3.7 km + 4.2 km = ____ km

h. 1.8 km + 6.1 km = ____ km

1. Draw lines to the scale to show the position of each amount.

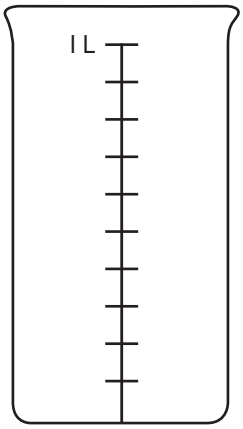
0.3 L

750 mL

$\frac{1}{2}$ L

0.7 L

350 mL



$\frac{1}{5}$ L

0.95 L

0.05 L

$\frac{1}{4}$ L

0.4 L

2. Write compass directions to make true sentences.

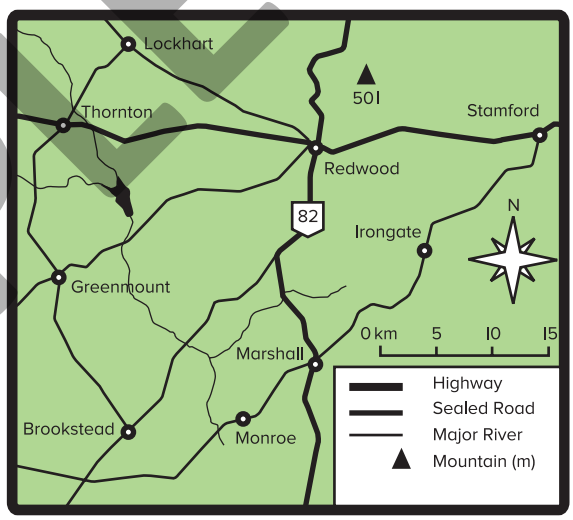
a. The mountain is _____ of Redwood.

b. Redwood is _____ of Marshall and _____ of Thornton.

c. Greenmount is _____ of Redwood.

d. Lockhart is _____ of Thornton.

e. Monroe is _____ of Marshall and _____ of Brookstead.



3. Use what you know about equivalence to calculate each total.

a. $\frac{3}{10} + \frac{45}{100} =$ ☐

b. $\frac{6}{10} + \frac{9}{100} =$ ☐

c. $\frac{1}{10} + \frac{57}{100} =$ ☐

d. $\frac{7}{10} + \frac{15}{100} =$ ☐

e. $3\frac{2}{10} + \frac{30}{100} =$ ☐

f. $1\frac{1}{10} + 2\frac{10}{100} =$ ☐

g. $\frac{9}{100} + 1\frac{2}{10} =$ ☐

h. $1\frac{14}{100} + 2\frac{5}{10} =$ ☐

i. $1\frac{4}{100} + 1\frac{5}{100} =$ ☐

AMAZING FACT

★ Work out each of these and write the quotient. Then write each letter above its matching quotient at the bottom of the page. Some letters appear more than once.

64 ÷ 2 =		t	186 ÷ 2 =		v
132 ÷ 2 =		d	78 ÷ 2 =		h
48 ÷ 2 =		a	520 ÷ 2 =		n
96 ÷ 2 =		s	462 ÷ 2 =		g
320 ÷ 2 =		l	248 ÷ 2 =		e
126 ÷ 2 =		i	280 ÷ 2 =		r
86 ÷ 2 =		f	68 ÷ 2 =		p
420 ÷ 2 =		w	44 ÷ 2 =		o
484 ÷ 2 =		c			

___	___	___	___	___	___	___	___	___		___	___	___	___	___
63	66	124	260	32	63	242	24	160		32	210	63	260	48

___	___		___	___	___		___	___	___	___		
66	22		260	22	32		39	24	93	124		

___	___	___	___	___	___	___	___	___	
63	66	124	260	32	63	242	24	160	

___	___	___	___	___	___	___	___	___	___	___	___	
43	63	260	231	124	140	34	140	63	260	32	48	

1. Solve these word problems. Show your thinking.

a. Callon is buying a car valued at $17 590. He has $9500 in his savings. The dealer gave him $8900 for his old car. How much will he have left over?

$ _____

b. Emma wants to buy a car for $18 250. She has saved $11 125. Her parents will give her $5000 towards the cost. How much more does she need to save?

$ _____

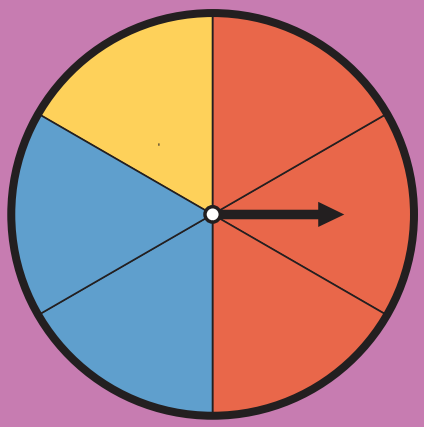
2. Write a fraction to describe the chance of these events.

a. Spinning red ___

b. Spinning blue ___

c. Not spinning yellow ___

d. Spinning yellow or red ___



3. Write the missing digits in these formal multiplication algorithms.

a.

	4	2	
×		1	9
	3	7	8
4			0
7			8

b.

	3	5	
×		2	7
		4	5
	7	0	0
		4	5

c.

		6	3
×		1	8
	5	0	4
	6		
1	1	3	

d.

		4	8
×		3	7
		3	6
		4	0
1		7	6

1. These digit cards were drawn from a deck.

a. Use each digit once to make these.

- the **greatest** and **least** numbers

greatest	least
_____	_____

- any five numbers that are between 2 500 000 and 3 000 000

_____ _____ _____ _____ _____

b. Rewrite your five numbers from directly above in order from **least** to **greatest**.

_____ _____ _____ _____ _____

2. Complete these to show equivalent fractions.

a. 1.7 ones = _____ hundredths

b. 5 hundredths = _____ thousandths

c. 24 tens = _____ hundredths

d. 9 tenths = _____ thousandths

e. 750 hundredths = _____ tenths

f. 304 thousandths = _____ ones

3. Solve each problem. Show your thinking.

a. The Footy Fever website had 1235 members in April. They now have 2009 members. How many members have joined since April?

_____ members

b. The Surfer Girl website had 4207 members in June. They now have 3715 members. How many members have left since June?

_____ members