

ORIGO

STEPPING STONES

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

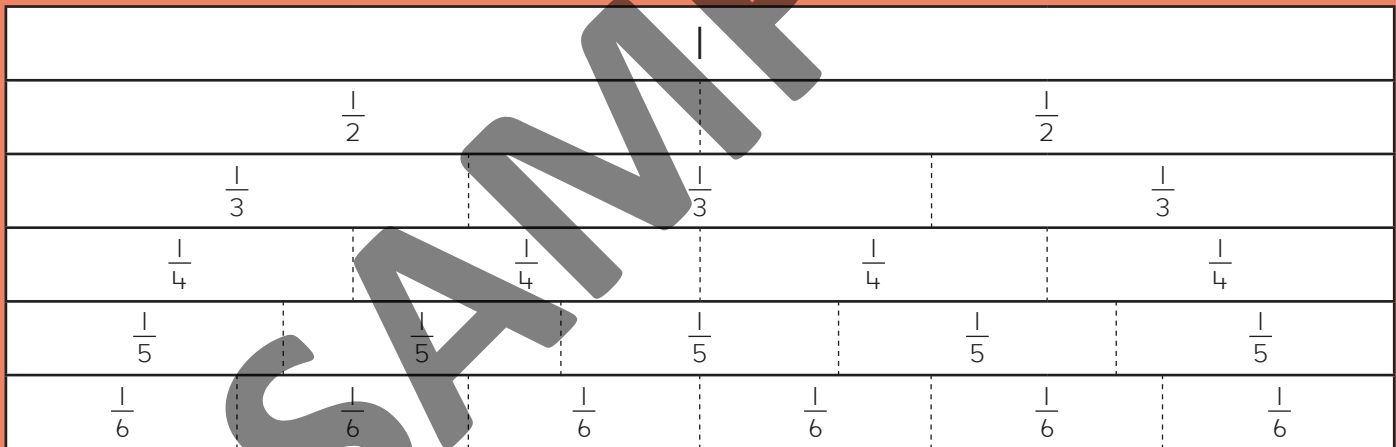
1. Double and halve to make a problem that is easier to solve. Then write the answer.

<p>a. 15×16</p> <p>_____ \times _____</p> <p>_____ \times _____</p> <p>$15 \times 16 =$ _____</p>	<p>b. 36×25</p> <p>_____ \times _____</p> <p>_____ \times _____</p> <p>$36 \times 25 =$ _____</p>	<p>c. 35×12</p> <p>_____ \times _____</p> <p>_____ \times _____</p> <p>$35 \times 12 =$ _____</p>
--	--	--



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.

<p>a.</p> <div style="border: 1px solid black; width: 150px; height: 100px; margin: 10px auto; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px dashed black;"></div> </div> <p>0.09 is the same as _____</p>	<p>b.</p> <div style="border: 1px solid black; width: 150px; height: 100px; margin: 10px auto; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px dashed black;"></div> </div> <p>0.19 is the same as _____</p>	<p>c.</p> <div style="border: 1px solid black; width: 150px; height: 100px; margin: 10px auto; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px dashed black;"></div> </div> <p>0.9 is the same as _____</p>
--	--	---

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  _____

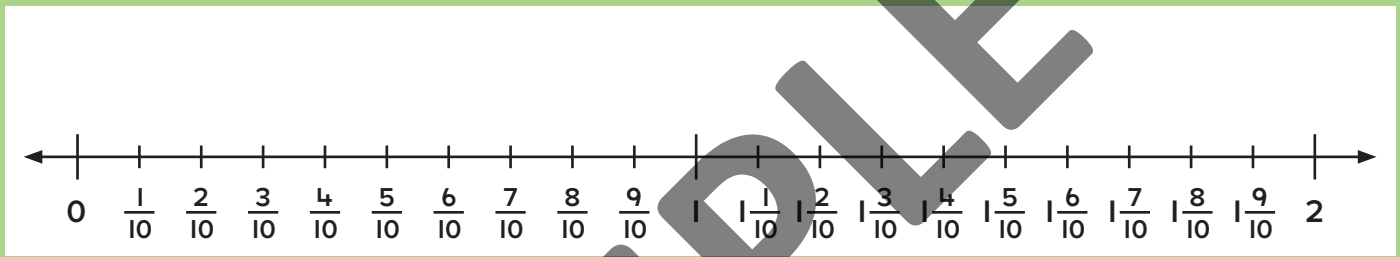
c. six and four hundred and nineteen thousandths  _____

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.



<p>a. $\frac{3}{10} + \frac{6}{10} = \frac{\quad}{\quad}$</p>	<p>b. $\frac{7}{10} + \frac{2}{10} = \frac{\quad}{\quad}$</p>	<p>c. $\frac{1}{10} + \frac{4}{10} = \frac{\quad}{\quad}$</p>
<p>d. $\frac{9}{10} + \frac{5}{10} = \frac{\quad}{\quad}$</p>	<p>e. $1\frac{2}{10} + \frac{6}{10} = \frac{\quad}{\quad}$</p>	<p>f. $\frac{8}{10} + 1\frac{3}{10} = \frac{\quad}{\quad}$</p>
<p>g. $\frac{7}{10} + \frac{8}{10} = \frac{\quad}{\quad}$</p>	<p>h. $\frac{3}{10} + 1\frac{9}{10} = \frac{\quad}{\quad}$</p>	<p>i. $1\frac{7}{10} + \frac{6}{10} = \frac{\quad}{\quad}$</p>

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.

$4 \times 45 =$ <input type="text"/>	<i>t</i>	$8 \times 45 =$ <input type="text"/>	<i>e</i>
$6 \times 35 =$ <input type="text"/>	<i>s</i>	$4 \times 35 =$ <input type="text"/>	<i>l</i>
$6 \times 65 =$ <input type="text"/>	<i>f</i>	$6 \times 85 =$ <input type="text"/>	<i>y</i>
$4 \times 55 =$ <input type="text"/>	<i>h</i>	$8 \times 65 =$ <input type="text"/>	<i>a</i>
$8 \times 55 =$ <input type="text"/>	<i>i</i>	$4 \times 65 =$ <input type="text"/>	<i>n</i>
$6 \times 45 =$ <input type="text"/>	<i>m</i>	$8 \times 35 =$ <input type="text"/>	<i>o</i>
$6 \times 75 =$ <input type="text"/>	<i>b</i>		

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
520	450	520	180	440	210	180	220	360	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
280	260	140	510	270	520	270	270	520	140
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
180	220	520	180	390	140	440	360	210	

1. Complete the parts. Then write the quotient.

a.

$$216 \div 3 = \boxed{}$$

is the same as

$$\boxed{} \div 3 \text{ plus } \boxed{} \div 3$$

b.

$$129 \div 3 = \boxed{}$$

is the same as

$$\boxed{} \div 3 \text{ plus } \boxed{} \div 3$$

c.

$$155 \div 5 = \boxed{}$$

is the same as

$$\boxed{} \div 5 \text{ plus } \boxed{} \div 5$$

d.

$$288 \div 4 = \boxed{}$$

is the same as

$$\boxed{} \div 4 \text{ plus } \boxed{} \div 4$$

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

a.

$$1 = \frac{\boxed{}}{2}$$

$$2 = \frac{\boxed{}}{2}$$

$$3 = \frac{\boxed{}}{2}$$

$$4 = \frac{\boxed{}}{2}$$

$$5 = \frac{\boxed{}}{2}$$

b.

$$1 = \frac{\boxed{}}{3}$$

$$2 = \frac{\boxed{}}{3}$$

$$3 = \frac{\boxed{}}{3}$$

$$4 = \frac{\boxed{}}{3}$$

$$5 = \frac{\boxed{}}{3}$$

c.

$$1 = \frac{\boxed{}}{4}$$

$$2 = \frac{\boxed{}}{4}$$

$$3 = \frac{\boxed{}}{4}$$

$$4 = \frac{\boxed{}}{4}$$

$$5 = \frac{\boxed{}}{4}$$

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

a.

$$3.2 \text{ km} + 4.5 \text{ km} = \boxed{} \text{ km}$$

b.

$$5.1 \text{ km} + 2.7 \text{ km} = \boxed{} \text{ km}$$

c.

$$2.6 \text{ km} + 1.3 \text{ km} = \boxed{} \text{ km}$$

d.

$$2.3 \text{ km} + 6.4 \text{ km} = \boxed{} \text{ km}$$

e.

$$4.5 \text{ km} + 2.4 \text{ km} = \boxed{} \text{ km}$$

f.

$$4.6 \text{ km} + 2.2 \text{ km} = \boxed{} \text{ km}$$

g.

$$3.7 \text{ km} + 4.2 \text{ km} = \boxed{} \text{ km}$$

h.

$$1.8 \text{ km} + 6.1 \text{ km} = \boxed{} \text{ km}$$

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

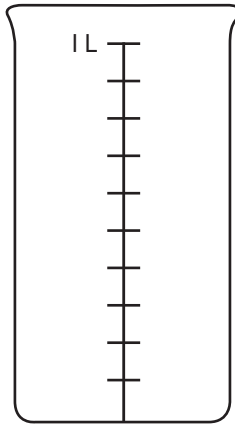
0.3 L

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.

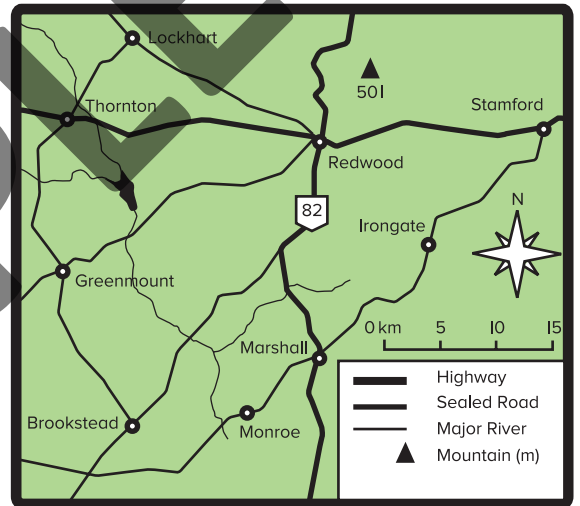
a. The mountain is _____ of Redwood.

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.

$64 \div 2 = \underline{\quad\quad}$ t

$186 \div 2 = \underline{\quad\quad}$ v

$132 \div 2 = \underline{\quad\quad}$ d

$78 \div 2 = \underline{\quad\quad}$ h

$48 \div 2 = \underline{\quad\quad}$ a

$520 \div 2 = \underline{\quad\quad}$ n

$96 \div 2 = \underline{\quad\quad}$ s

$462 \div 2 = \underline{\quad\quad}$ g

$320 \div 2 = \underline{\quad\quad}$ l

$248 \div 2 = \underline{\quad\quad}$ e

$126 \div 2 = \underline{\quad\quad}$ i

$280 \div 2 = \underline{\quad\quad}$ r

$86 \div 2 = \underline{\quad\quad}$ f

$68 \div 2 = \underline{\quad\quad}$ p

$420 \div 2 = \underline{\quad\quad}$ w

$44 \div 2 = \underline{\quad\quad}$ o

$484 \div 2 = \underline{\quad\quad}$ c

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
63	66	124	260	32	63	242	24	160	32	210	63	260	48	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	66	22	260	22	32	39	24	93	124					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	63	66	124	260	32	63	242	24	160					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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?

\$ _____

\$ _____

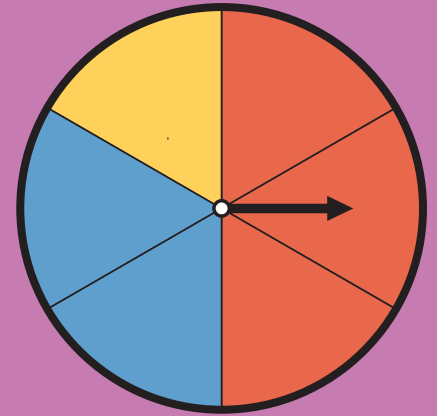
2. Write a fraction to describe the chance of these events.

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.

$$\begin{array}{r}
 42 \\
 \times 19 \\
 \hline
 378 \\
 4 \square 0 \\
 \hline
 7 \square 8
 \end{array}$$

b.

$$\begin{array}{r}
 35 \\
 \times 27 \\
 \hline
 \square 45 \\
 700 \\
 \hline
 \square 45
 \end{array}$$

c.

$$\begin{array}{r}
 63 \\
 \times 18 \\
 \hline
 504 \\
 6 \square \square \\
 \hline
 113 \square
 \end{array}$$

d.

$$\begin{array}{r}
 48 \\
 \times 37 \\
 \hline
 336 \\
 \square \square 40 \\
 \hline
 1 \square 76
 \end{array}$$

1. These digit cards were drawn from a deck.



a. Use each digit once to make these.

greatest

least

• the **greatest** and **least** numbers

• 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?

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

_____ members

_____ members