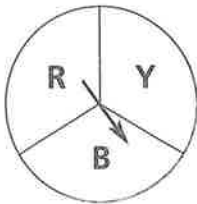
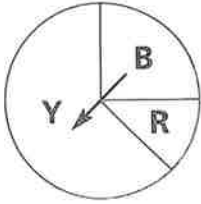


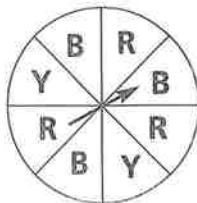
1 Draw lines to join each spinner to the matching chance statement.
(R = Red, B = Blue, and Y = Yellow.)



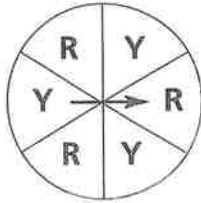
There is an equal chance of landing on red or blue.



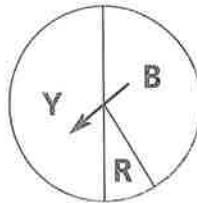
There is a 1-in-3 chance of landing on red, blue or yellow.



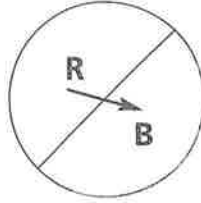
There is a less than equal chance of landing on red.



There is a zero chance of landing on yellow.

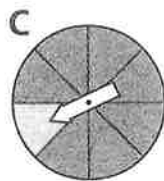
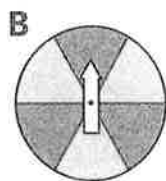
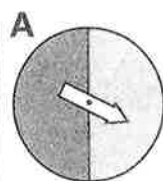


Yellow has the greatest chance of being selected.

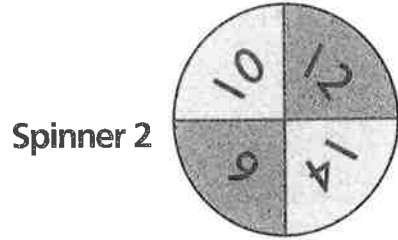
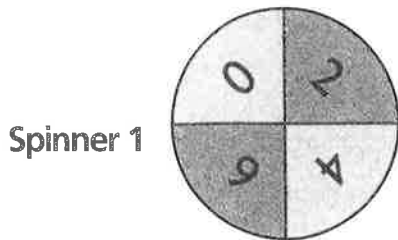


2 Which spinner below is most likely to produce these results from 10 spins? Explain.

Dark	Light



3 Complete the sentences below using the words **impossible**, **certain** or **likely**.



a If Spinner 1 is spun once:

- a multiple of 2 is _____
- a number greater than 20 is _____
- a two-digit number is _____
- a one-digit number is _____

b If Spinner 2 is spun once:

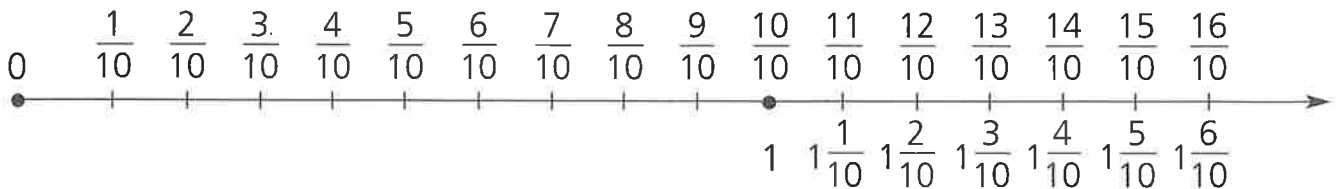
- a multiple of 2 is _____
- a number greater than 20 is _____
- a two-digit number is _____
- an odd number is _____

1 Find the totals.

a $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \boxed{\quad}$ b $\boxed{\quad} = \frac{1}{3} + \frac{1}{3}$ c $\boxed{\quad} = \frac{2}{5} + \frac{1}{5}$

d $\boxed{\quad} = \frac{2}{6} + \frac{3}{6}$ e $\frac{2}{8} + \frac{1}{8} + \frac{4}{8} = \boxed{\quad}$ f $\frac{3}{10} + \frac{2}{10} + \frac{4}{10} = \boxed{\quad}$

2 Use this number line to help you find answers for the following examples.



a $\frac{6}{10} + \frac{5}{10} - \frac{3}{10} = \boxed{\quad}$ b $\boxed{\quad} = \frac{5}{10} + \frac{4}{10} - \frac{7}{10}$

c $\boxed{\quad} = \frac{4}{10} + \frac{9}{10} - \frac{6}{10}$ d $\boxed{\quad} = \frac{8}{10} - \frac{3}{10} + \frac{4}{10}$

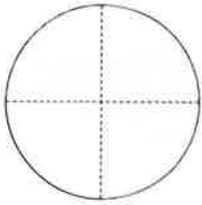
3 Express your answers to these in two forms.

a $\frac{6}{10} + \frac{4}{10} + \frac{2}{10} = \boxed{\frac{12}{10}}$ or $\boxed{1\frac{2}{10}}$ b $\frac{5}{10} + \frac{8}{10} + \frac{3}{10} = \boxed{\quad}$ or $\boxed{\quad}$

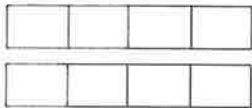
c $\frac{5}{10} + \frac{9}{10} - \frac{1}{10} = \boxed{\quad}$ or $\boxed{\quad}$ d $\frac{4}{10} + \frac{11}{10} - \frac{5}{10} = \boxed{\quad}$ or $\boxed{\quad}$

e $1\frac{6}{10} - \frac{2}{10} = \boxed{\quad}$ or $\boxed{\quad}$ f $1\frac{6}{10} - \frac{5}{10} = \boxed{\quad}$ or $\boxed{\quad}$

g $1\frac{5}{10} - \frac{2}{10} = \boxed{\quad}$ or $\boxed{\quad}$ h $1\frac{4}{10} - \frac{4}{10} = \boxed{\quad}$ or $\boxed{\quad}$



3 parts shaded \longrightarrow **3** \longleftarrow numerator
 out of \longrightarrow $\frac{\quad}{\quad}$ \div (vinculum)
 1 whole divided \longrightarrow **4** \longleftarrow denominator
 into 4 equal parts



$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$



$$\frac{5}{6} - \frac{3}{6} = \frac{2}{6}$$

Add or subtract the numerators **not** the denominators.

1 Write an addition statement to match each diagram.

a $\square + \square = \square$

b $\square + \square = \square$

c $\square + \square = \square$

d $\square + \square = \square$

2 Colour the bars to help you find the answers.

$\frac{2}{6} + \frac{2}{6} = \square$

$\frac{4}{10} + \frac{5}{10} = \square$

3 Write a subtraction sentence to match each diagram.

a $\frac{5}{6} - \frac{3}{6} = \frac{2}{6}$

b $\square - \square = \square$

c $\square - \square = \square$

d $\square - \square = \square$

1 Complete each sequence and write its rule.

	Rule
a $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, 1, 1\frac{1}{4}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 2\frac{1}{2}$	Add $\frac{1}{4}$
b $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, 1, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 2\frac{1}{5}$	
c $\frac{3}{10}, \frac{5}{10}, \frac{7}{10}, \frac{9}{10}, 1\frac{1}{10}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 2\frac{3}{10}$	
d $\frac{1}{8}, \frac{3}{8}, \frac{5}{8}, \frac{7}{8}, 1\frac{1}{8}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 2\frac{5}{8}$	
e $3\frac{5}{6}, 3\frac{3}{6}, 3\frac{1}{6}, 2\frac{5}{6}, 2\frac{3}{6}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \frac{5}{6}$	
f $4\frac{5}{10}, 4\frac{3}{10}, 4\frac{1}{10}, 3\frac{9}{10}, 3\frac{7}{10}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 2\frac{9}{10}$	
g \$2.15, \$2.20, \$2.25, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 2.50	
h \$6.70, \$6.50, \$6.30, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 5.10	
i 2 m 15 cm, 2 m 35 cm, 2 m 55 cm, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, 3\text{ m }15\text{ cm}$	

2 Follow the rule to complete each sequence.

	Rule	
a	Add \$0.25	\$4.15, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
b	Subtract \$0.15	\$4.95, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
c	Add 0.3	0.4, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$
d	Subtract 0.4	5.8, $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$

1 Describe the rule for each sequence.

a 0.1, 0.2, 0.4, 0.7, 1.1, 1.6, 2.2, 2.9, 3.7

b 0.1, 0.2, 0.4, 0.8, 1.6, 3.2, 6.4, 12.8, 25.6

c 76.8, 38.4, 19.2, 9.6, 4.8, 2.4, 1.2, 0.6, 0.3

d \$1.75, \$1.70, \$1.90, \$1.85, \$2.05, \$2.00, \$2.20, \$2.15

e \$2.00, \$2.02, \$2.06, \$2.12, \$2.20, \$2.30, \$2.42

f 8.5, 8.8, 8.6, 8.9, 8.7, 9.0, 8.8, 9.1, 8.9

2 Start at a number between 0 and 1.
Use the given rule to write your own sequence.

a Add 0.2, subtract 0.1

0. _____

b Add 0.5, subtract 0.2

0. _____

c Add 0.4, add 0.2

0. _____

1 Round each number to the nearest hundred.

a 274 _____ b 334 _____ c 358 _____ d 349 _____

e 429 _____ f 460 _____ g 489 _____ h 527 _____

i 668 _____ j 741 _____ k 888 _____ l 971 _____

2 Round each number to the nearest thousand.

a 1 072 _____ b 1 372 _____ c 1 402 _____ d 1 702 _____

e 2 316 _____ f 3 561 _____ g 4 670 _____ h 5 231 _____

i 6 560 _____ j 7 315 _____ k 8 603 _____ l 9 470 _____

3 Round each number to estimate an answer, then use a calculator to find the actual total.

	Rounded	Estimated Total	Actual Total
a	$472 + 346 \Rightarrow 500 + 300 =$	800	818
b	$549 + 573 \Rightarrow$		
c	$635 + 746 \Rightarrow$		
d	$871 + 398 \Rightarrow$		
e	$968 + 986 \Rightarrow$		
f	$1\,667 + 3\,452 \Rightarrow$		
g	$3\,438 + 4\,875 \Rightarrow$		
h	$4\,709 + 3\,856 \Rightarrow$		
i	$6\,656 + 8\,491 \Rightarrow$		

- 1 Round each number to the nearest hundred to estimate an answer. Then use a calculator to find the exact difference.

		Round		Round		Round		
a	517	<input type="text"/>	b	684	<input type="text"/>	c	723	<input type="text"/>
	- 286	- <input type="text"/>		- 396	- <input type="text"/>		- 286	- <input type="text"/>
	_____	_____		_____	_____		_____	_____
	_____	_____		_____	_____		_____	_____
	Exact	Estimate		Exact	Estimate		Exact	Estimate

- 2 Round each number to the nearest ten to estimate an answer. Then use a calculator to find the exact product.

		Exact			Exact
a	23 × 29 =	<input type="text"/>	b	36 × 38 =	<input type="text"/>
Estimate	<input type="text"/> × <input type="text"/> =	<input type="text"/>	Estimate	<input type="text"/> × <input type="text"/> =	<input type="text"/>

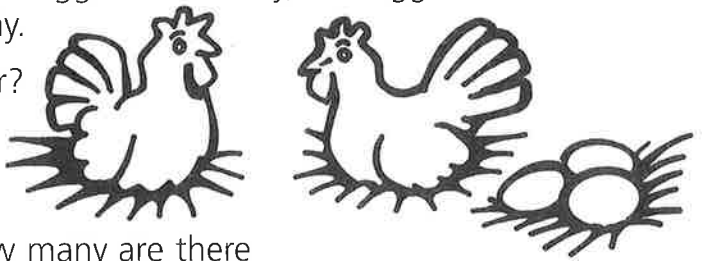
		Exact			Exact
c	44 × 53 =	<input type="text"/>	d	68 × 78 =	<input type="text"/>
Estimate	<input type="text"/> × <input type="text"/> =	<input type="text"/>	Estimate	<input type="text"/> × <input type="text"/> =	<input type="text"/>

- 3 Round and record an estimated answer. Use a calculator to find the actual answer.

- a** At the poultry farm, the hens laid 327 eggs on Monday, 374 eggs on Tuesday and 283 eggs on Wednesday.

How many eggs were laid altogether?

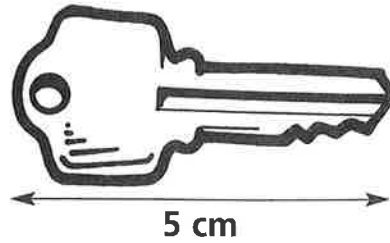
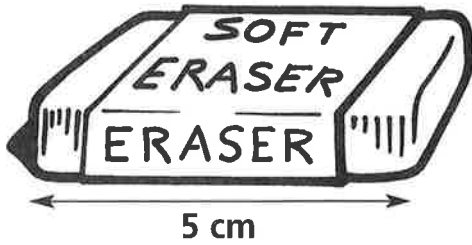
Estimate Exact



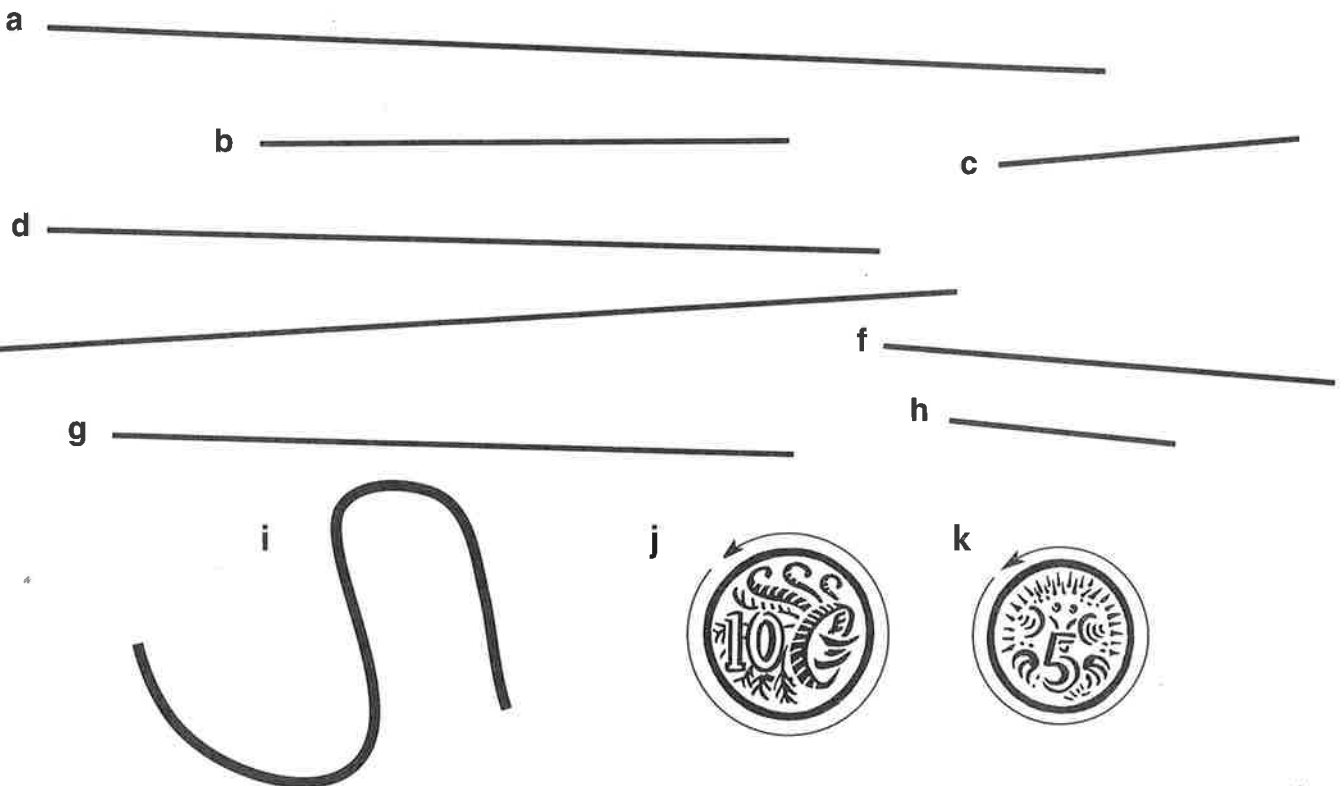
- b** If there are 28 mints in one box, how many are there altogether in 42 identical boxes?

Estimate Exact



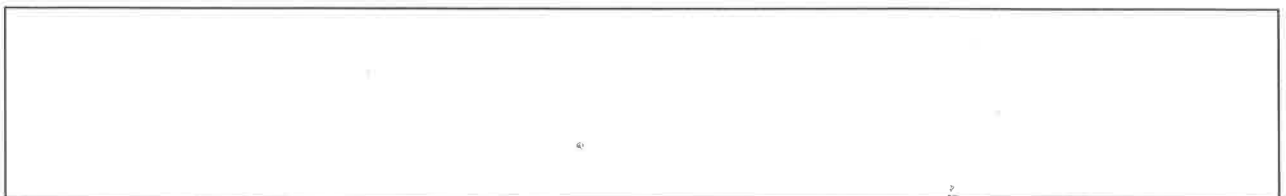


- 1 Record an estimate for the length of each line in centimetres. Measure the lines. Find the difference between your estimate and the measurement.



Line	a	b	c	d	e	f	g	h	i	j	k
Estimate in Centimetres											
Actual Measurement											
Difference											

- 2 Draw a curved line 20 cm in length. Use string to check your accuracy.

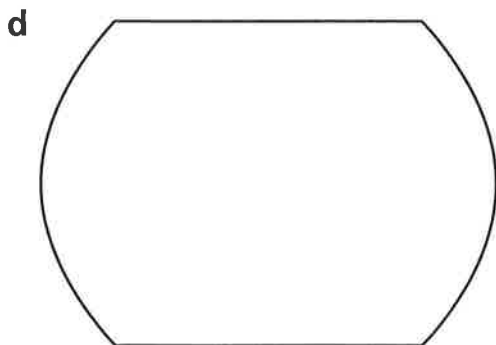
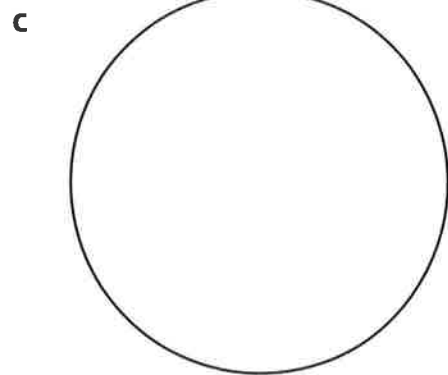




- 1 Estimate the length of the objects in this table in centimetres.
Check your estimates.
Find the difference between the estimate and the measure for each.

Object	Estimate in Centimetres	Actual Measure	Difference
shoe			
paintbrush			
maths book			
scissors			
pencil case			

- 2 Estimate the perimeter of each shape below to the nearest whole centimetre.
Use string to check your estimates.
Find the difference between the estimate and the measure for each.



Object	a	b	c	d
Estimate of Perimeter				
Measure of Perimeter				
Difference				