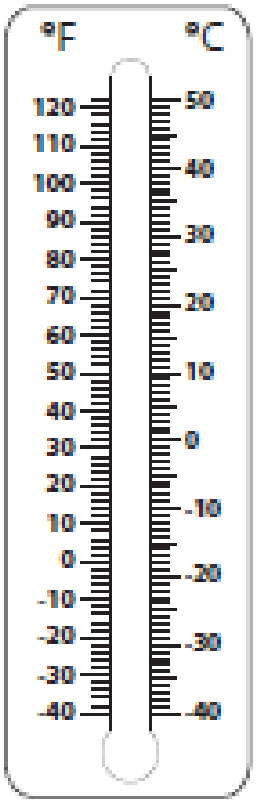
Negative Numbers (Day 1) – Lesson 1

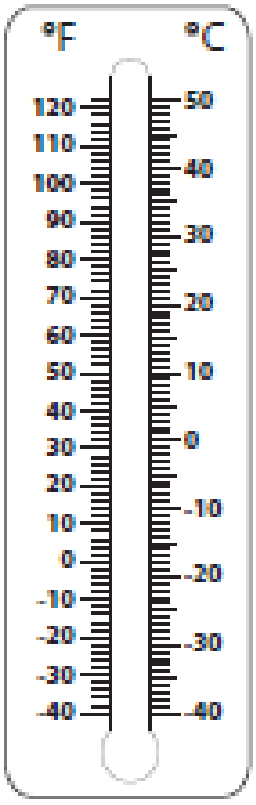
When shading the thermometers below, ensure you take the time to understand the scale. Sometimes you need to measure the temperature in degrees Celsius (right hand scale) or sometimes it will need to be measured in Fahrenheit (left hand scale)

Shade each thermometer to indicate the specified temperature.

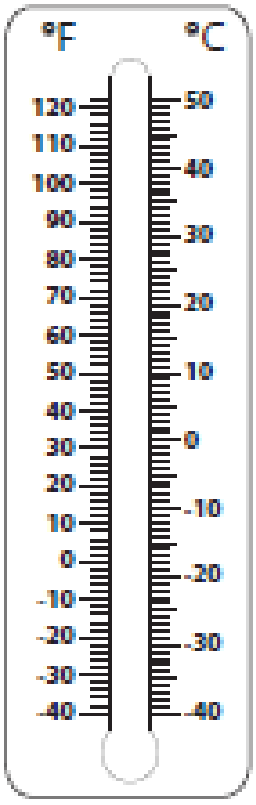
1) –4 °C



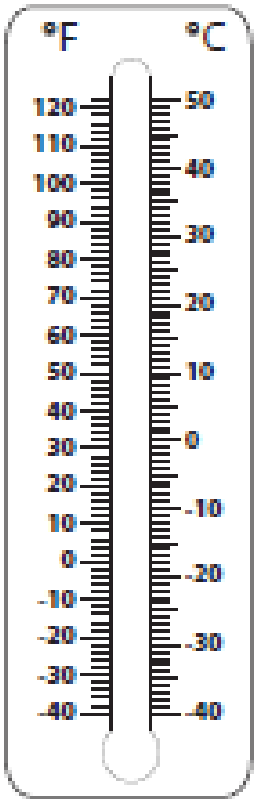
2) 90 °F



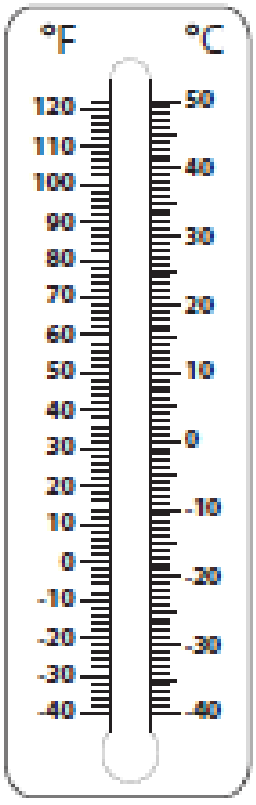
3) 48 °C



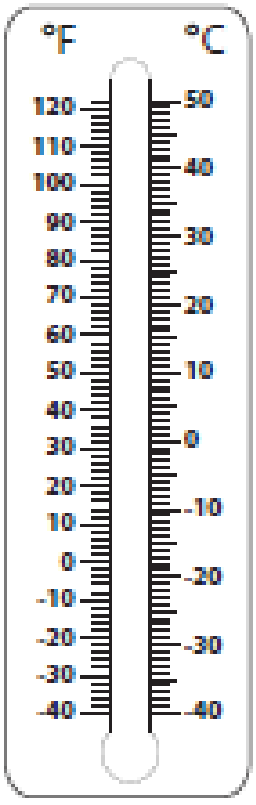
4) –15 °F



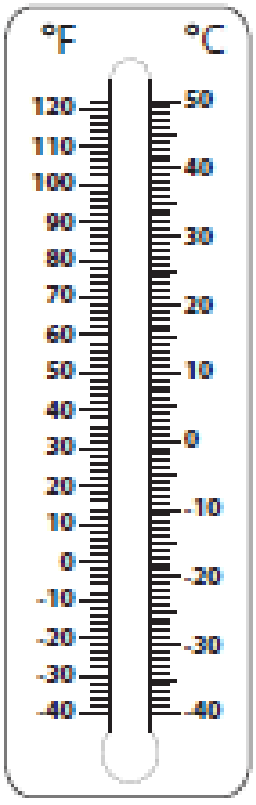
5) 12 °C



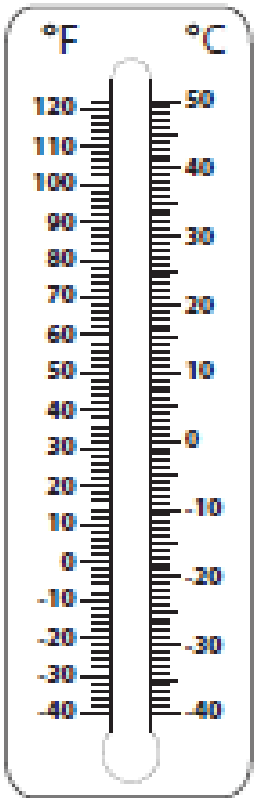
6) 78 °F



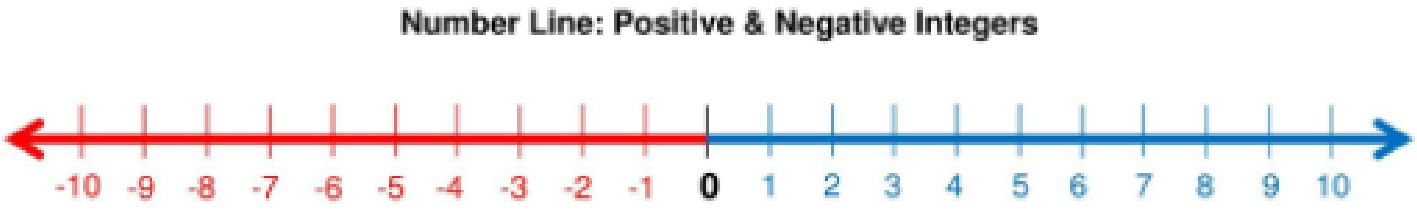
7) –27 °C



8) 112 °F



Calculations with Negative numbers



Use the number line above to calculate the answers to the questions below. For these questions, you can follow the simple rules, if you subtract a number you move along the number line to the left, if you add a number you move along the number line to the right.

1. $2 - 3 =$

2. $1 - 4 =$

3. $4 - 5 =$

4. $3 - 6 =$

5. $2 - 7 =$

6. $1 - 4 =$

7. $3 - 4 =$

8. $1 - 2 =$

9. $5 - 7 =$

10. $4 - 6 =$

11. $5 - 3 =$

12. $4 - 2 =$

13. $-1 - 3 =$

14. $-4 - 1 =$

15. $-2 - 2 =$

16. $3 - 5 =$

17. $-4 + 2 =$

18. $-2 + 5 =$

19. $-1 + 3 =$

20. $-3 + 7 =$

21. $-5 + 4 =$

22. $-2 + 6 =$

23. $-5 + 1 =$

24. $0 - 3 =$

25. $-5 + 5 =$

Negative Numbers (Day 2) – Lesson 2

Let's revise what we learnt yesterday (you may wish to use the number line from yesterday's worksheet)…

1)

a) 4 - 7	b) 3 - 10	c) 4 - 5
d) -2 - 5	e) -4 + 8	f) -2 - 7
g) -4 - 4	h) - 5 + 3	i) -4 - 2
j) -6 + 2	k) -6 - 2	l) -5 - 5

The next set of questions are a little more challenging. Read the information in the red box below, imagining that a negative number is an ice cube and a positive number is a fire cube

If you **add** a **FIRE CUBE** it gets **hotter**.

If you **remove** a **FIRE CUBE** it gets **colder**.

If you **add** an **ICE CUBE** it gets **colder**.

If you **remove** an **ICE CUBE** it gets **hotter**.

2)

a) -4 + 2	b) -4 - 6	c) -5 - 2
d) -5 + -1	e) 5 + -2	f) 6 + -3
g) 4 - -2	h) 3 - -4	i) -2 + -3
j) -2 + -5	k) -3 - -6	l) -4 - -2

Negative Numbers and Temperature

Amazing Fact

The warmest temperature ever recorded at the South Pole was a freezing -12.3 °C in December 2011, making it one of the coldest places on Earth.

Challenge

Complete the activities using negative numbers in a temperature context.

1. Put these temperatures in order, the coldest first.

   a. 2 °C, -8 °C, -1 °C, -6 °C, -4 °C

   _____

   b. 6 °C, 10 °C, -15 °C, -11 °C, 14 °C

   _____

   c. 16 °C, 18 °C, -23 °C, -25 °C, -13 °C, 12 °C, 20 °C

   _____

2. Which of these temperatures is lowest?

   a. -4 °C or -2 °C

   _____

   b. -8 °C or 8 °C

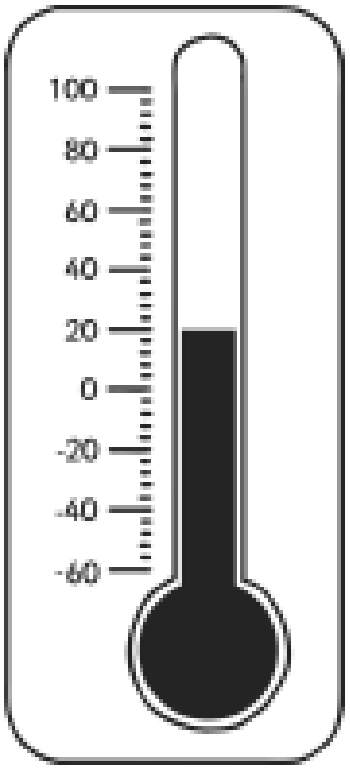
   _____

   c. -16 °C or -17 °C

   _____

   d. -5 °C or -6 °C

   _____



3. Answer the questions below:

a. The temperature rises by 15 degrees from -4 °C. What is the new temperature?

_____

b. The temperature falls from 11 °C to -2 °C. How many degrees does the temperature fall?

_____

c. The temperature is 6 °C. It falls by 8 degrees. What is the temperature now?

_____

d. The temperature is -3 °C. How much must it rise to reach 5 °C?

_____

e. What is the difference in temperature between -4 °C and 14 °C?

_____

f. The temperature was -5 °C. It falls by 6 degrees. What is the temperature now?

_____

g. The temperature is -11 °C. It rises by 2 degrees. What is the temperature now?

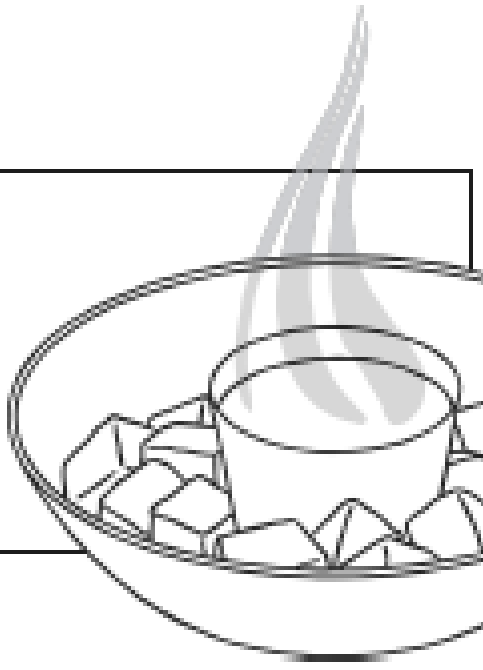
_____

h. The temperature is -20 °C. How much must it rise to reach -5 °C?

_____

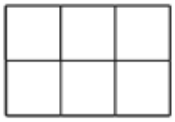
You could also try to find out:

- which places, if any, are colder;
- how scientists based at the South Pole survive the cold;
- when, and for how long, the South Pole gets sunshine;
- where the hottest place on Earth is.

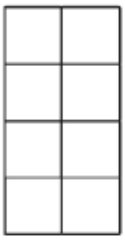


Common Equivalent fractions – Lesson 3

Shade $\frac{1}{2}$ of each shape. Look at how many squares are shaded (numerator) and the total amount of squares (denominator) and write the equivalent fraction underneath.

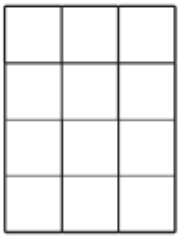


1. ____

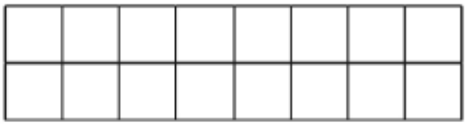


2. ____

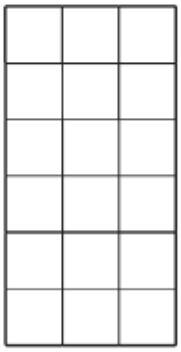
3. ____



4. ____

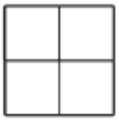


5. ____

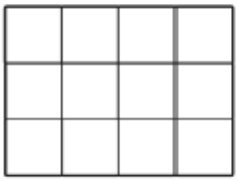


6. ____

Shade $\frac{1}{4}$ of each shape. Look at how many squares are shaded (numerator) and the total amount of squares (denominator) and write the equivalent fraction underneath.

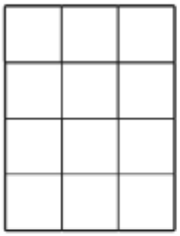


1. ____

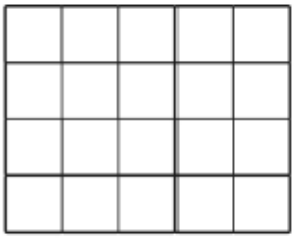


2. ____

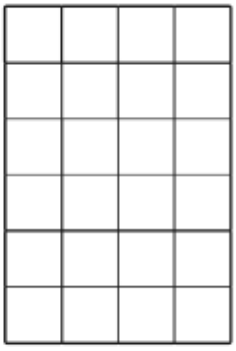
3. ____



4. ____



5. ____

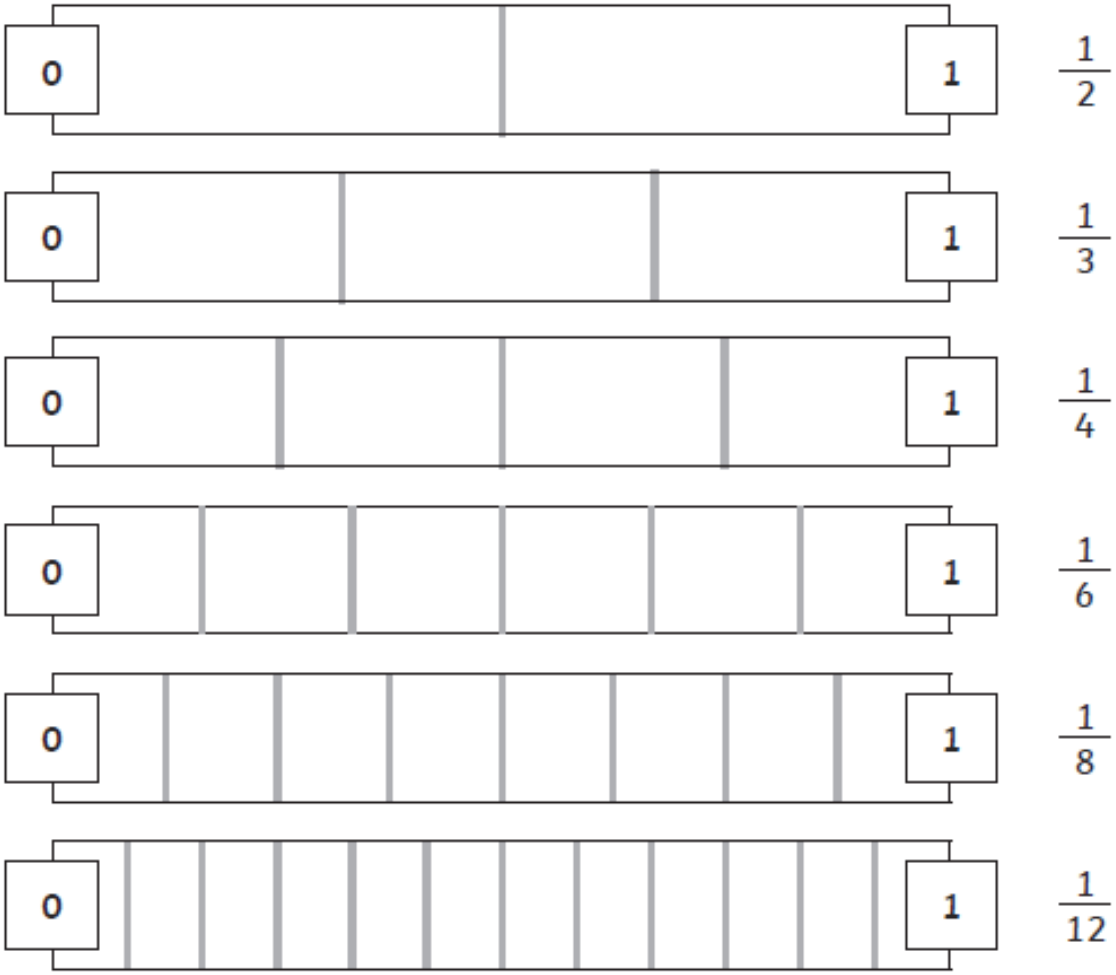


6. ____

Common Equivalent fractions – Lesson 3 (continued)

Equivalent Fractions

First, divide each line according to the denominator shown. Then, use each fraction line to find the equivalent fractions.



1. $\frac{6}{12} = \frac{\square}{2}$

2. $\frac{3}{\square} = \frac{1}{4}$

3. $\frac{2}{\square} = \frac{4}{12}$

4. $\frac{\square}{4} = \frac{6}{8}$

5. $\frac{4}{\square} = \frac{1}{3}$

6. $\frac{5}{6} = \frac{10}{\square}$

7. $\frac{2}{3} = \frac{8}{\square}$

8. $\frac{1}{\square} = \frac{2}{12}$

Challenge:

Using what you've learnt about the equivalence between the fractions above, can you work out these equivalent fractions?

9. $\frac{1}{3} = \frac{\square}{9}$

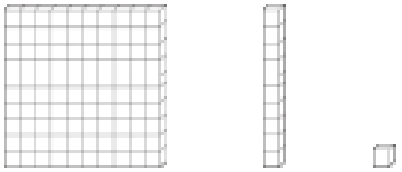
10. $\frac{7}{8} = \frac{\square}{16}$

11. $\frac{5}{12} = \frac{10}{\square}$

12. $\frac{2}{3} = \frac{\square}{9}$

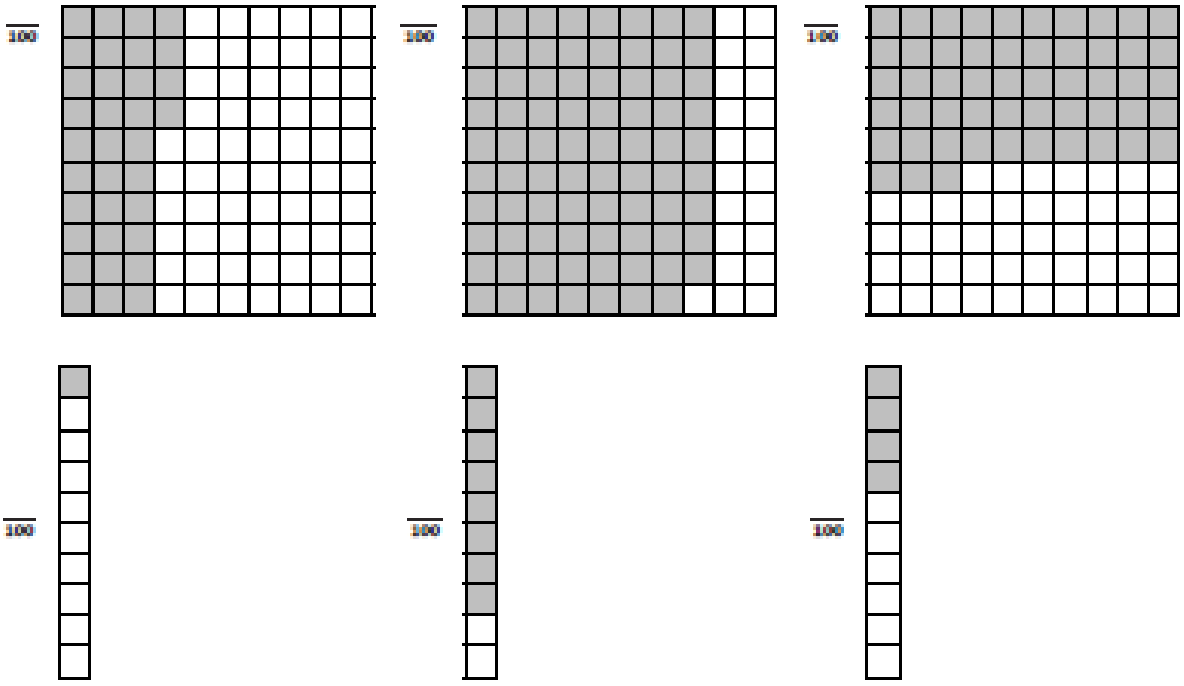
Hundredths – Lesson 4

We can use Dienes to represent hundredths and tenths.

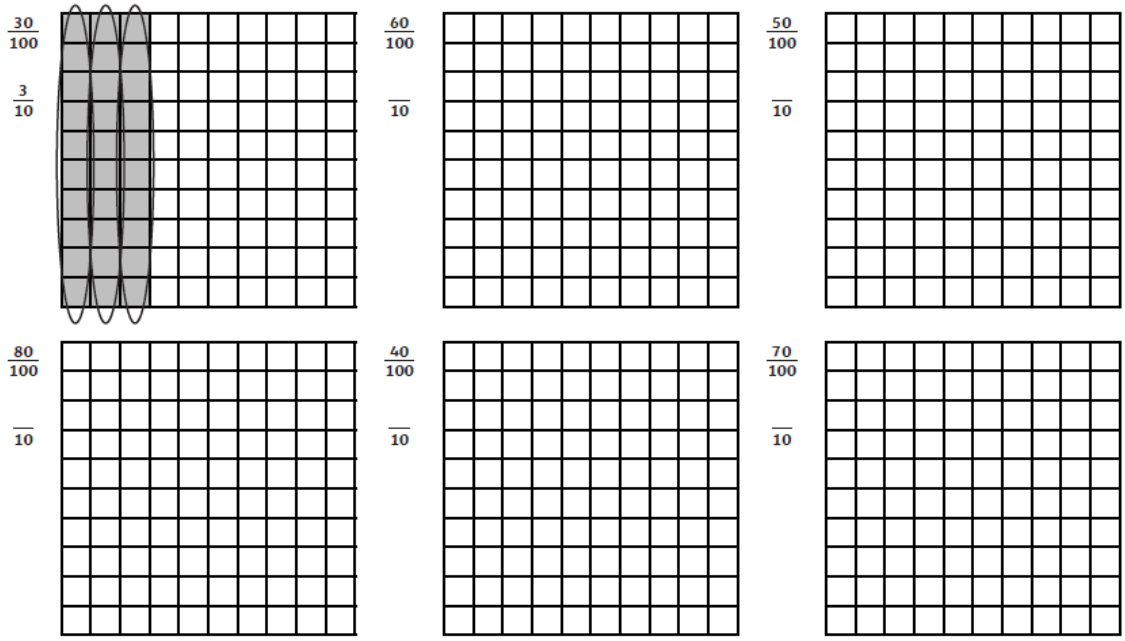


one whole $\frac{1}{10}$ $\frac{1}{100}$

1. How many hundredths is represented by each picture?



2. Each square is one whole. Colour in the fraction for each square. Then draw circles to show tenths and write how many tenths you have coloured.



2. Complete the following pairs of equivalent fractions .You could use a Hundredths and Tenths Grid to help you.

a. $\frac{20}{100} = \frac{}{10}$ c. $\frac{}{100} = \frac{7}{10}$ e. $\frac{}{100} = \frac{9}{10}$

b. $\frac{}{100} = \frac{5}{10}$ d. $\frac{30}{100} = \frac{}{10}$ f. $\frac{60}{100} = \frac{}{10}$

Hundredths – Lesson 4 (continued)

Use a hundredths square to help you to answer the following questions.

Complete the number sequences:

1. ____ , ____ , $\frac{97}{100}$, $\frac{98}{100}$, ____ , ____

2. ____ , $\frac{66}{100}$, ____ , $\frac{64}{100}$, ____ , $\frac{62}{100}$, ____ , $\frac{60}{100}$

3. $\frac{56}{100}$, $\frac{58}{100}$, ____ , ____ , ____ , $\frac{86}{100}$, ____

4. $\frac{20}{100}$, ____ , $\frac{30}{100}$, ____ , $\frac{40}{100}$, ____ , ____ , $\frac{55}{100}$

5. $\frac{78}{100}$, ____ , ____ , $\frac{70}{100}$, $\frac{68}{100}$, ____ , ____

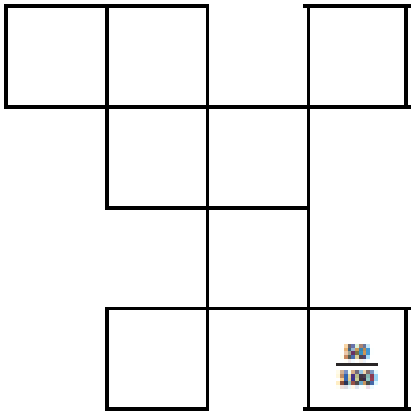
6. $\frac{40}{100}$, ____ , ____ , $\frac{52}{100}$, ____ , $\frac{60}{100}$, ____

7. $\frac{30}{100}$, $\frac{27}{100}$, ____ , ____ , ____ , ____ , $\frac{12}{100}$

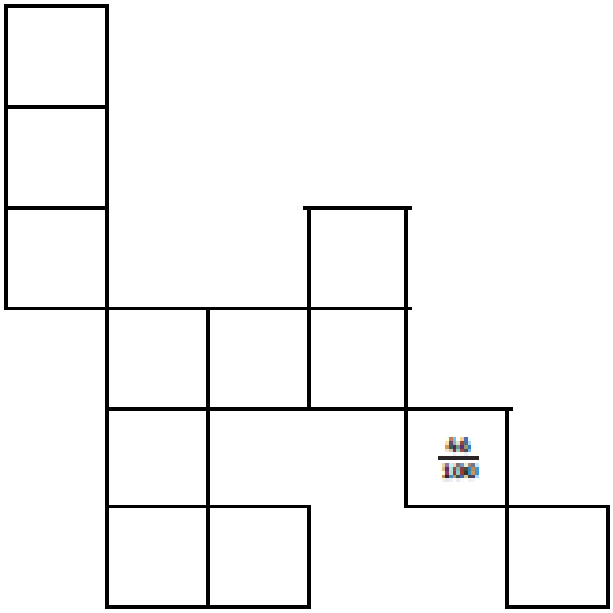
8. $\frac{30}{100}$, ____ , ____ , $\frac{15}{100}$, $\frac{10}{100}$, ____ , ____

A hundredths square has been cut into pieces. Complete each piece by writing in the missing hundredths.

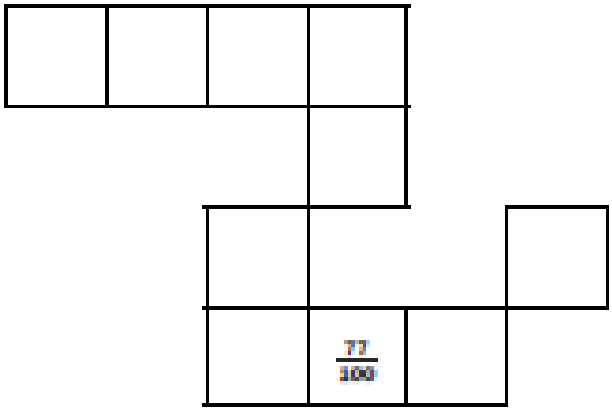
9.



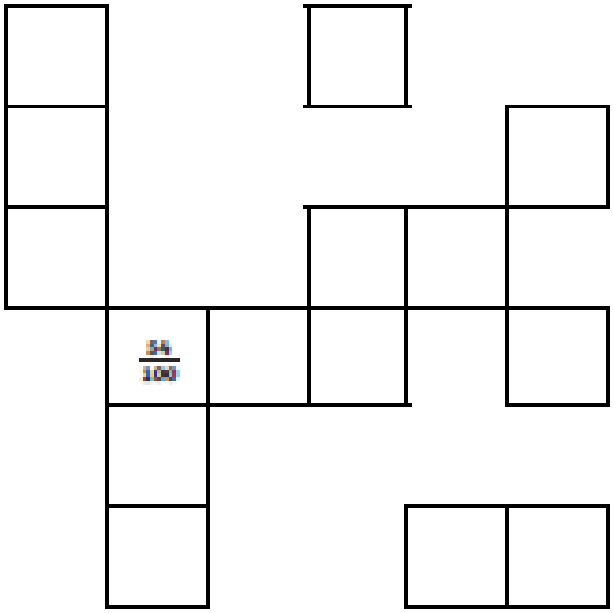
11.



10.



12.



Estimating Answers – Lesson 5

For each question, round each number to the nearest 100, and use this to help calculate an estimate to the answer. One has been completed below showing you how to complete the work.

11. Which of these calculations give an answer of about 2500?
1243 + 2217
1183 + 1335
261 + 2731
1705 + 87

1,243 + 2,217 = 1,200 + 2,200 = 3,400
1,183 + 1,335 = 1,200 + 1,300 = 2,500 ✓
261 + 2,731 = 300 + 2,700 = 3,000
1,705 + 87 = 1,700 + 100 = 1,800

6. Which of these calculations give an answer of about 1500?	7. Which of these calculations give an answer of about 2000?	8. Which of these calculations give an answer of about 3000?	9. Which of these calculations give an answer of about 4000?	10. Which of these calculations give an answer of about 5000?
756 + 747	1600 + 200	1500 + 1075	2314 + 1219	2345 + 2675
623 + 576	400 + 1900	2050 + 960	1294 + 3213	1350 + 3450
1225 + 261	1300 + 700	1025 + 1750	3011 + 1012	2085 + 1800
925 + 403	1500 + 1500	750 + 2200	2410 + 1056	2345 + 3160

As above, round each number to the nearest 100, and use this to help calculate an estimate to the answer. One has been completed below showing you how to complete the work. Note it is subtraction this time,

5. Which of these calculations give an answer of about 500?
834 - 323
1224 - 756
968 - 362
543 - 131

834 - 323 = 800 - 300 = 500 ✓
1,224 – 756 = 1,200 - 800 = 400
968 - 362 = 1,000 - 400 = 600
543 - 131 = 500 - 100 = 400

6. Which of these calculations give an answer of about 600?	7. Which of these calculations give an answer of about 700?	8. Which of these calculations give an answer of about 750?	9. Which of these calculations give an answer of about 900?	10. Which of these calculations give an answer of about 1000?
796 - 127	1220 - 600	1520 - 775	2334 - 1429	3242 - 2215
623 - 121	2550 - 1840	2015 - 1320	4294 - 3213	5113 - 4035
1250 - 540	1310 - 720	2230 - 1250	3061 - 1042	6226 - 521
945 - 343	2000 - 1160	3050 - 2200	2471 - 1353	1750 - 550

Using Inverse operations to check calculations – Lesson 6

Check the answers to these calculations using the inverse operation and mark them right or wrong!

	Calculation	Check with Inverse	Correct?
e.g.	5 5 7 - 2 7 8 2 7 7 → work backwards!	2 7 7 + 2 7 8 5 5 5	Wrong!
1.	8 7 + 4 4 6 4 5 9		
2.	1 4 4 - 7 5 6 9		
3.	3 6 7 + 4 5 9 8 2 6		
4.	6 7 4 - 5 9 6 1 8 2		
5.	2 8 6 + 1 3 7 8 1 6 6 2		
6.	1 3 4 2 - 4 7 8 9 4 2		
7.	2 7 8 6 + 1 5 1 2 4 2 9 9		
8.	2 4 5 7 - 1 6 8 7 7 7 0		

Now complete these questions below and check your answers by using the inverse operations.

$$\begin{array}{r} 6911 \\ +\ 6251 \\ \hline \end{array} \qquad \begin{array}{r} 6074 \\ +\ 2922 \\ \hline \end{array} \qquad \begin{array}{r} 3729 \\ -\ 2402 \\ \hline \end{array} \qquad \begin{array}{r} 4245 \\ -\ 1949 \\ \hline \end{array}$$

Factor pairs (Day 1) - Lesson 7

To find the **factors** of a number, you need to find all the pairs of numbers that multiply together to make a **product**.

2 × 5 = 10

2 and 5 are **factors**. 10 is the **product.**

Find all the factors for the numbers below. The first one has been started for you.

30	1	15	10	30				
12								
9								
22								
16								
13								
7								
50								
14								
33								
18								

List the factors of these numbers:

1. 16

2. 21

3. 24

4. 48

5. 64

List the factors of these numbers:

6. 7

7. 11

8. 23

9. 13

10. 5

What do you notice about these numbers? (Questions 6-10)

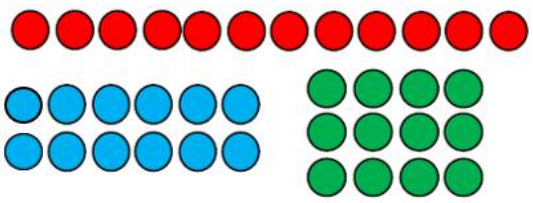
_____

These numbers are called prime numbers.

Can you find three more prime numbers? _____, _____, _____

Varied Fluency

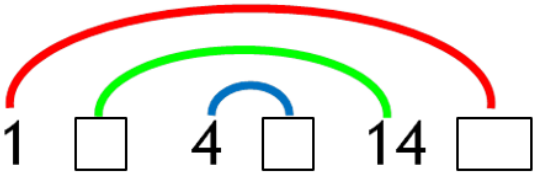
1 What factor pairs for 12 do these arrays show?



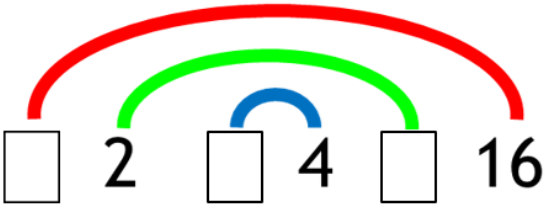
Use counters to create arrays for 24. How many factor pairs can you find?

2. Complete these factor rainbows.

This rainbow is for 28.



This rainbow is for 16.



3. Draw your own factor rainbow for 20.

Factor pairs (Day 2) - Lesson 8

1

The factor pairs of 15 are:

1 and 15

3 and 5

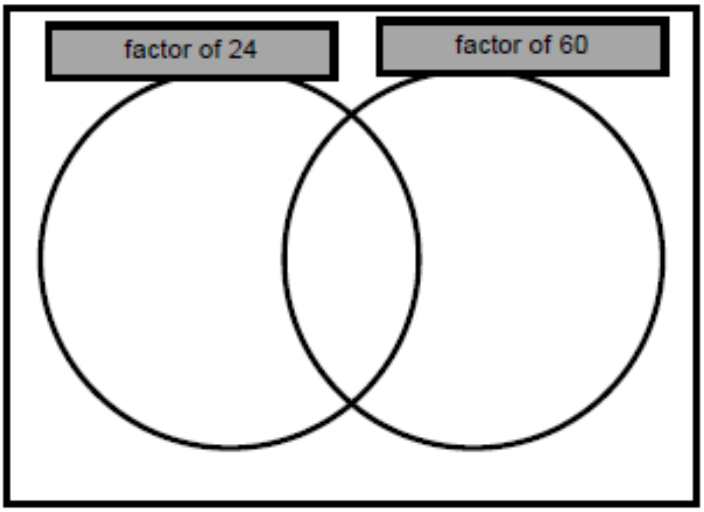
Write all the factor pairs of 20:

____ and ____

____ and ____

____ and ____

2



Write each of these numbers in its correct place on the Venn diagram.

4 20 12 8

14 15 7 10

3

Write **all** the numbers that are a factor of 18 **and** a factor of 30.

4

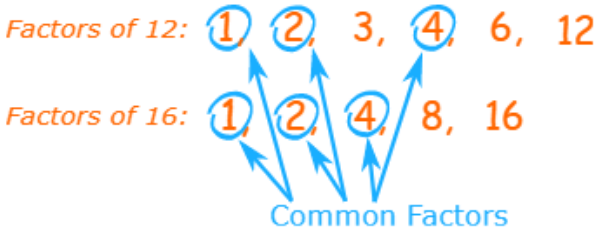
Write **all** the numbers between 50 and 100 that are **factors of 360**.

5

The number **40** has **eight factors**. (1, 2, 4, 5, 8,10, 20, 40)

Write another number **less than 50** that has **eight factors**.

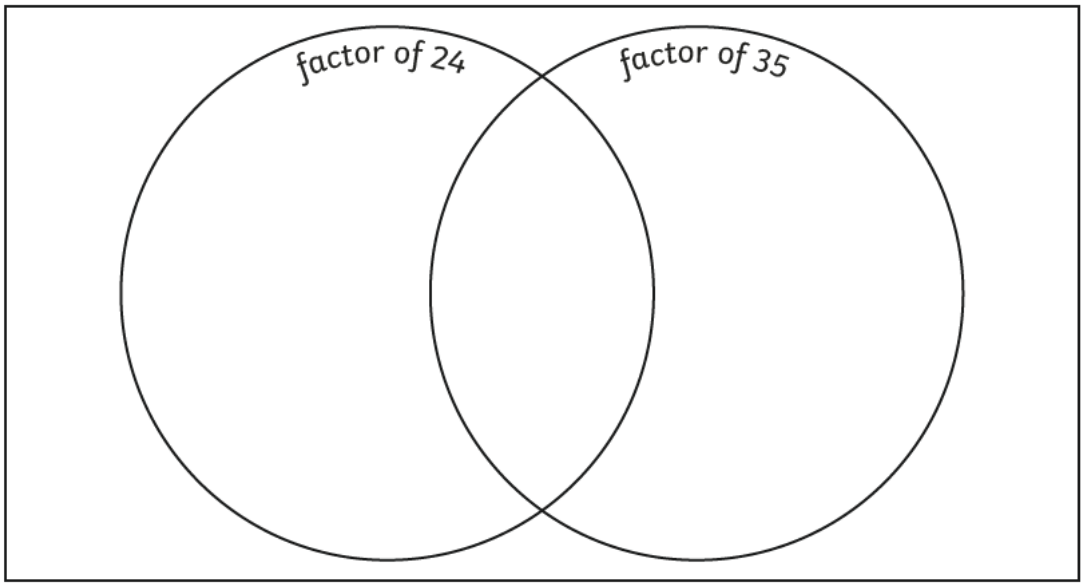
When we find the factors of two or more numbers, and then find some factors are the same ("common"), then they are the "common factors".



Example: 12 and 16
- The factors of 12 are: 1, 2, 3, 4, 6 and 12
- The factors of 16 are: 1, 2, 4, 8 and 16

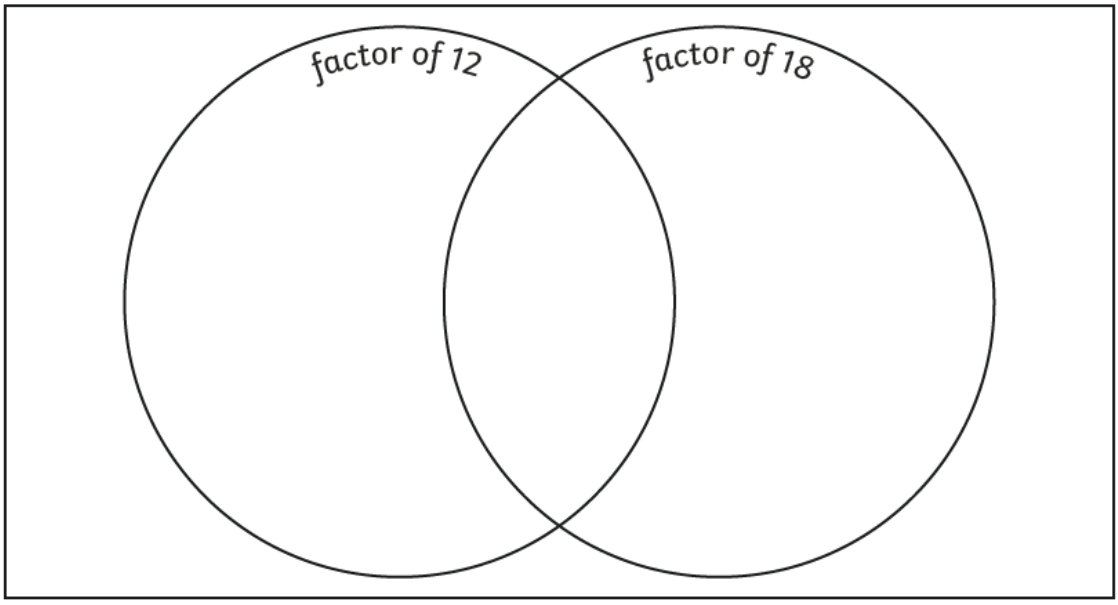
So the common factors of 12 and 16 are: 1, 2 and 4

1) Place the numbers 1-35 correctly onto the Venn diagram.



What are the common factors? _____

2) Place the numbers 1-18 correctly onto the Venn diagram.



What are the common factors? _____

What is the highest common factor? _____

Counting in Multiples of 6,7 & 9 - Lesson 9

I can count in multiples of 6, 7 and 9.

Colour Key

Multiples of 6:

Multiples of 7:

Multiples of 9:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Can you spot any patterns in the multiples of 6, 7 and 9? Think about whether the multiples are odd or even, the digit total of the multiples, and the pattern of the ones and tens digits. There might not be a pattern for all the multiples of each number. Are there any tips for remembering the multiples of 6, 7 and 9? Think about links to other times tables.

Multiples of 6	Multiples of 7	Multiples of 9

Counting in Multiples of 6,7 & 9 - Lesson 9 (continued)

Complete the following sequences:

a) ____ 12 18 24 30 ____

b) 49 42 ____ 28 ____ 14

c) ____ 45 54 63 ____ 81

d) 90 ____ ____ 72 66 60

e) 56 ____ 70 77 ____ 91

f) ____ 126 120 ____ 108 102

g) 99 108 ____ 126 ____ 144

h) 112 ____ 126 133 140

i) ____ 180 186 192 198

j) 210 203 ____ 189 175

Complete the following sequences:

k) 35 41 47 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

l) 2 11 20 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

m) 40 47 54 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

n) 100 106 112 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

o) 99 106 113 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

p) 300 291 282 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

q) 172 166 160 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

r) 31 40 49 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

s) 86 79 72 ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

Challenge

Choose a starting number and count in 6s, 7s and 9s from that number.

Counting in Multiples of 25 & 1,000 - Lesson 10

Counting in 25s Worksheet

Aim – I can count in 25s from any given number.

Can you complete these sequences by counting in 25s?

1.

0	25			

2.

175			250	

3.

550	575			

4.

			975	

5.

				325

6.

		725		

Look at these sequences which start from a number other than 0 but still go up in 25s. In each line one of the numbers is wrong. Can you circle it? The first one is done for you.

1.	55	(70)	105	130	155	180
2.	16	41	56	91	116	141
3.	115	140	165	190	212	240
4.	499	524	549	574	594	624
5.	879	904	939	954	979	1004
6.	1042	1076	1101	1126	1151	1176

Counting in Multiples of 25 & 1,000 - Lesson 10 (continued)

Counting in 1000 Not From 0

LO: to count in 1000s

Complete the following sequences:

a) 1013 2013 3013 _____ 5013 _____

b) 10 472 9472 _____ 7472 _____ 5472

c) _____ 5706 6706 7706 _____ 9706

d) 12 293 _____ _____ 9293 8293 7293

e) 6038 _____ 8038 9038 _____ 11 038

f) _____ 11 720 10 720 _____ 8720 7720

g) 26 671 25 671 _____ 23 671 _____ 21 671

h) 19 337 _____ _____ 22 337 23 337 24 337

i) _____ _____ 47 405 48 405 49 405 50 405

j) 66 049 65 049 _____ _____ 62 049 61 049

Challenge: can you count on in thousands from these numbers?

k) 104 892 _____ _____ _____ _____ _____ _____

l) 386 315 _____ _____ _____ _____ _____ _____

m) 740 012 _____ _____ _____ _____ _____ _____

Can you complete these?

n) _____ _____ 290 891 _____ _____ _____ _____

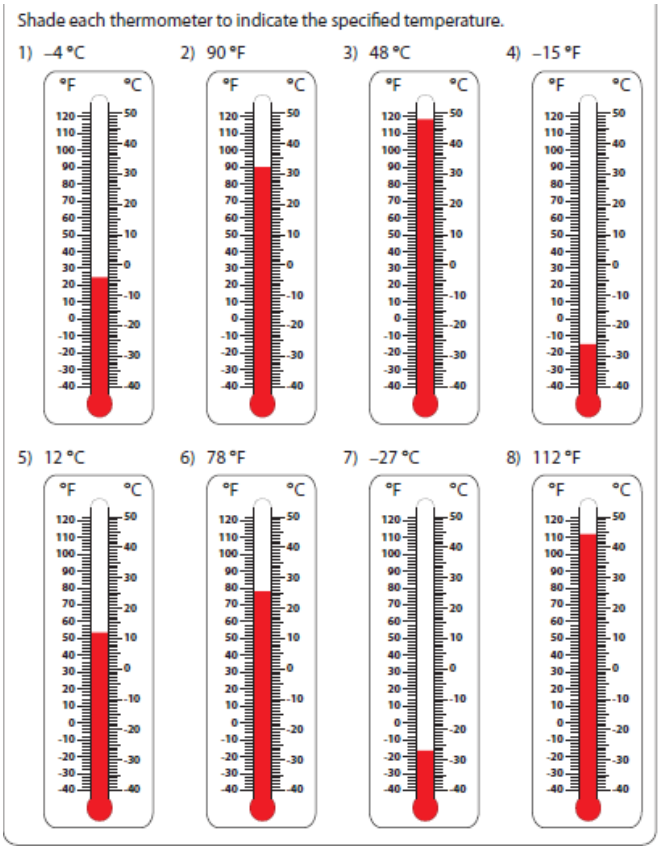
o) _____ _____ _____ _____ 601 098 _____ _____

p) _____ _____ _____ _____ _____ _____ 930 660

Answers

When you have completed your work each day – check/mark your answers to see how you have performed.

Negative Numbers (Day 1) – Lesson 1



Calculations with Negative numbers

1.	-1	14.	-5
2.	-3	15.	-4
3.	-1	16.	-2
4.	-3	17.	-2
5.	-5	18.	3
6.	-3	19.	2
7.	-1	20.	4
8.	-1	21.	-1
9.	-2	22.	4
10.	-2	23.	-4
11.	-2	24.	-3
12.	-2	25.	0
13.	-4		

Negative Numbers (Day 2) – Lesson 2

Calculations with Negative numbers

1	2
a) -3	a) -2
b) -7	b) -10
c) -1	c) -7
d) -7	d) -6
e) 4	e) 3
f) -9	f) 3
g) -8	g) 6
h) -2	h) 7
i) -6	i) -5
j) -4	j) -7
k) -8	k) 3
l) -10	l) -2

Negative Numbers and Temperature

1.
   a. -8°C, -6°C, -4°C, -1°C, 2°C,
   b. -15°C, -11°C, 6°C, 10°C, 14°C
   c. -25°C, -23°C, -13°C, 12°C, 16°C, 18°C, 20°C
2.
   a. -4°C
   b. -8°C
   c. -17°C
   d. -6°C
3.
   a. 11°C
   b. 13°C
   c. -2°C
   d. 8°C
   e. 18°C
   f. -11°C
   g. -9°C
   h. 15°C

Common Equivalent fractions – Lesson 3

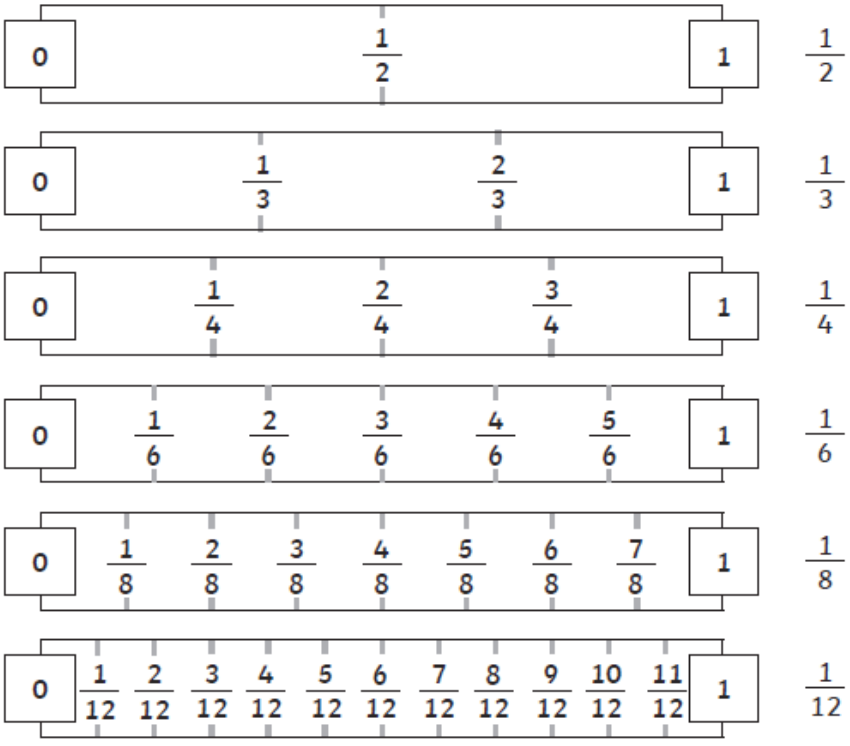
½

1. Any 3 squares shaded
2. Any 4 squares shaded
3. Any 6 squares shaded
4. Any 6 squares shaded
5. Any 8 squares shaded
6. Any 9 squares shaded

¼

1. Any 1 square shaded
2. Any 3 squares shaded
3. Any 3 squares shaded
4. Any 3 squares shaded
5. Any 5 squares shaded
6. Any 6 squares shaded

Equivalent Fractions **Answers**



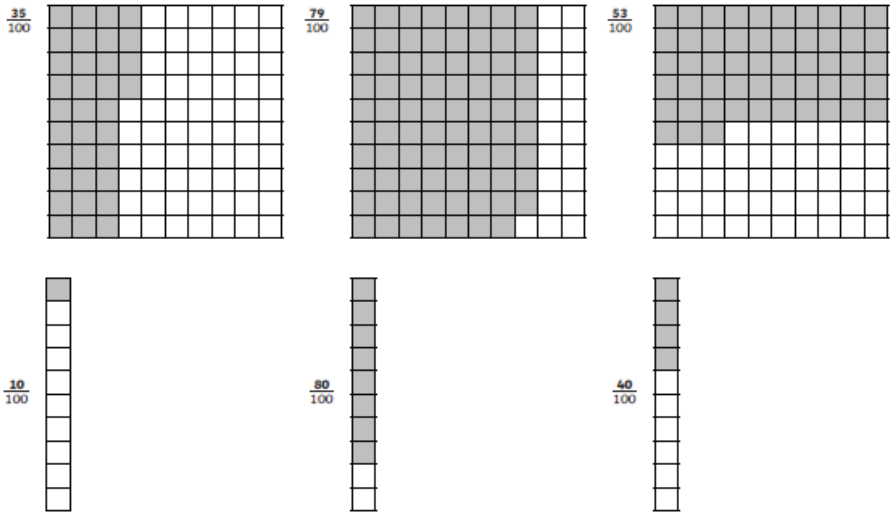
1. $\frac{6}{12} = \frac{\boxed{1}}{2}$
2. $\frac{3}{\boxed{12}} = \frac{1}{4}$
3. $\frac{2}{\boxed{6}} = \frac{4}{12}$
4. $\frac{\boxed{3}}{4} = \frac{6}{8}$
5. $\frac{4}{\boxed{12}} = \frac{1}{3}$
6. $\frac{5}{6} = \frac{10}{\boxed{12}}$
7. $\frac{2}{3} = \frac{8}{\boxed{12}}$
8. $\frac{1}{\boxed{6}} = \frac{2}{12}$

Challenge:
Using what you've learnt about the equivalence between the fractions above, can you work out these equivalent fractions?

9. $\frac{1}{3} = \frac{\boxed{3}}{9}$
10. $\frac{7}{8} = \frac{\boxed{14}}{16}$
11. $\frac{5}{12} = \frac{10}{\boxed{24}}$
12. $\frac{2}{3} = \frac{\boxed{6}}{9}$

Hundredths - Lesson 4

1. How many hundredths is represented by each picture?



2. Complete the following pairs of equivalent fractions. You could use a Hundredths and Tenths Grid to help you.

a. $\frac{20}{100} = \frac{2}{10}$ c. $\frac{70}{100} = \frac{7}{10}$ e. $\frac{90}{100} = \frac{9}{10}$

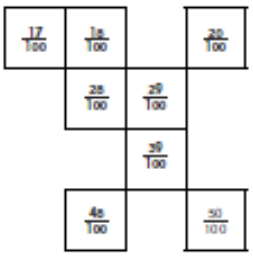
b. $\frac{50}{100} = \frac{5}{10}$ d. $\frac{30}{100} = \frac{3}{10}$ f. $\frac{60}{100} = \frac{6}{10}$

Use a hundredths square to help you to answer the following questions.
Complete the number sequences:

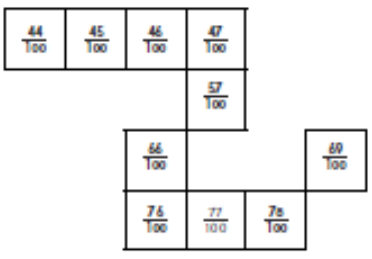
1. $\frac{95}{100}, \frac{96}{100}, \frac{97}{100}, \frac{98}{100}, \frac{99}{100}, \frac{100}{100}$
2. $\frac{67}{100}, \frac{66}{100}, \frac{65}{100}, \frac{64}{100}, \frac{63}{100}, \frac{62}{100}, \frac{61}{100}, \frac{60}{100}$
3. $\frac{56}{100}, \frac{58}{100}, \frac{60}{100}, \frac{62}{100}, \frac{64}{100}, \frac{66}{100}, \frac{68}{100}$
4. $\frac{20}{100}, \frac{25}{100}, \frac{30}{100}, \frac{35}{100}, \frac{40}{100}, \frac{45}{100}, \frac{50}{100}, \frac{55}{100}$
5. $\frac{76}{100}, \frac{74}{100}, \frac{72}{100}, \frac{70}{100}, \frac{68}{100}, \frac{66}{100}, \frac{64}{100}$
6. $\frac{40}{100}, \frac{44}{100}, \frac{48}{100}, \frac{52}{100}, \frac{56}{100}, \frac{60}{100}, \frac{64}{100}$
7. $\frac{30}{100}, \frac{27}{100}, \frac{24}{100}, \frac{21}{100}, \frac{18}{100}, \frac{15}{100}, \frac{12}{100}$
8. $\frac{30}{100}, \frac{25}{100}, \frac{20}{100}, \frac{15}{100}, \frac{10}{100}, \frac{5}{100}, \frac{0}{100}$

A hundredths square has been cut into pieces. Complete each piece by writing in the missing hundredths.

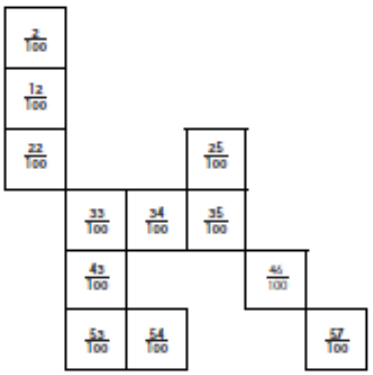
9.



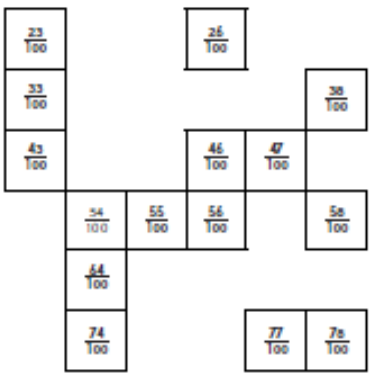
10.



11.



12.



Estimating Answers - Lesson 5

6. Which of these calculations give an answer of about 1500?	7. Which of these calculations give an answer of about 2000?	8. Which of these calculations give an answer of about 3000?	9. Which of these calculations give an answer of about 4000?	10. Which of these calculations give an answer of about 5000?
(756 + 747)	1600 + 200	1500 + 1075	2314 + 1219	(2345 + 2675)
623 + 576	400 + 1900	(2050 + 960)	1294 + 3213	1350 + 3450
(1225 + 261)	(1300 + 700)	1025 + 1750	(3011 + 1012)	2085 + 1800
925 + 403	1500 + 1500	750 + 2200	2410 + 1056	2345 + 3160

6. Which of these calculations give an answer of about 600?	7. Which of these calculations give an answer of about 700?	8. Which of these calculations give an answer of about 750?	9. Which of these calculations give an answer of about 900?	10. Which of these calculations give an answer of about 1000?
796 - 127	1220 - 600	(1520 - 775)	(2334 - 1429)	(3242 - 2215)
623 - 121	(2550 - 1840)	2015 - 1320	4294 - 3213	5113 - 4035
1250 - 540	1310 - 720	2230 - 1250	3061 - 1042	6226 - 521
(945 - 343)	2000 - 1160	3050 - 2200	2471 - 1353	1750 - 550

Inverse Operations - Lesson 6

question	answer	
A.		
1	459 – 446 = 13	**Wrong!**
2	75 + 69 = 144	**Correct!**
3	826 – 459 = 367	**Correct!**
4	182 + 596 = 778	**Wrong!**
5	1662 - 1378 = 284	**Wrong!**
6	942 + 478 = 1420	**Wrong!**
7	4299 – 1512 = 2787	**Wrong!**
8	770 + 1687 = 2457	**Correct!**

$$\begin{array}{r} 6911 \\ +\ 6251 \\ \hline 13162 \end{array} \qquad \begin{array}{r} 6074 \\ +\ 2922 \\ \hline 8996 \end{array} \qquad \begin{array}{r} 3729 \\ -\ 2402 \\ \hline 1327 \end{array} \qquad \begin{array}{r} 4245 \\ -\ 1949 \\ \hline 2296 \end{array}$$

Factor pairs (Day 1) - Lesson 7

Find the Factors

Find all the factors for the numbers below. The first one has been started for you.

30	1	15	10	30	2	3	5	6
12	1	2	3	4	6	12		
9	1	3	9					
22	1	2	11	22				
16	1	2	4	8	16			
13	1	13						
7	1	7						
50	1	2	5	10	25	50		
14	1	2	7	14				
33	1	3	11	33				
18	1	2	3	6	9	18		

List the factors of these numbers:

1. 16 **1, 2, 4, 8, 16**
2. 21 **1, 3, 7, 21**
3. 24 **1, 2, 3, 4, 6, 8, 12, 24**
4. 48 **1, 2, 3, 4, 6, 8, 12, 16, 24, 48**
5. 64 **1, 2, 4, 8, 16, 32, 64**

List the factors of these numbers:

6. 7 **1, 7**
7. 11 **1, 11**
8. 23 **1, 23**
9. 13 **1, 13**
10. 5 **1, 5**

What do you notice about these numbers?

They only have 1 and the number itself as factors

These numbers are called prime numbers.

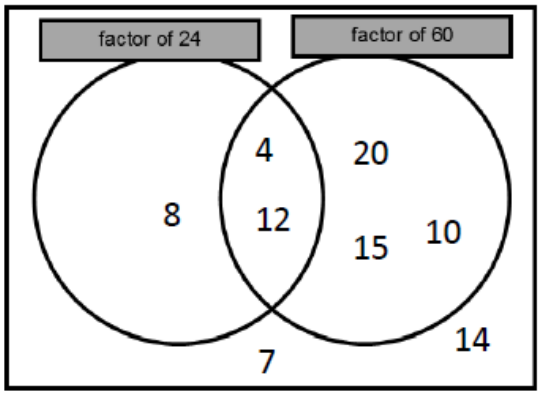
Can you find three more prime numbers? **Multiple answers possible**

Factor pairs (Day 2) - Lesson 8

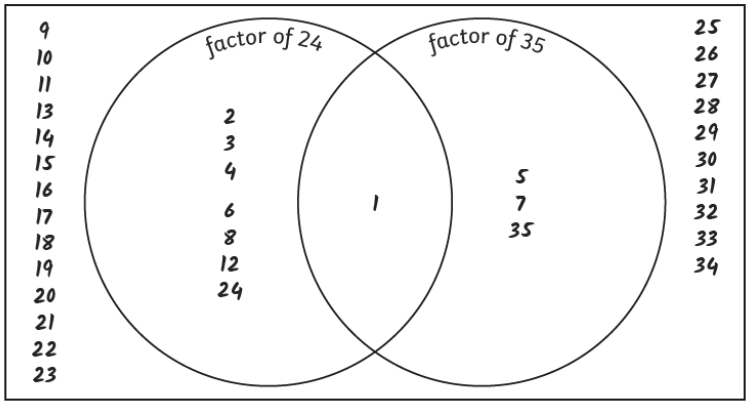
Answers:

1) 1 and 20, 2 and 10, 4 and 5

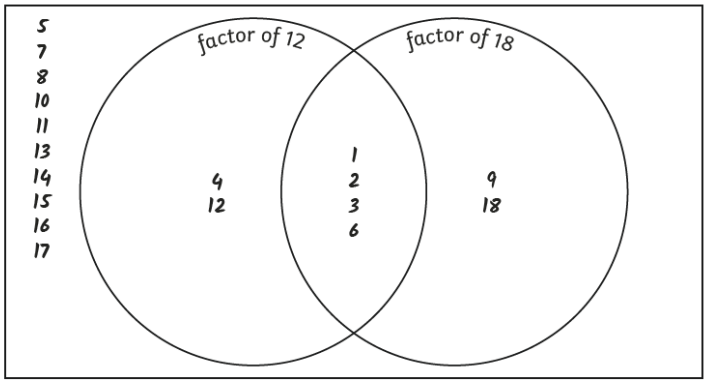
2)



3) 1,2,3,6 4)60 and 90 5) 30 or 32



What are the common factors? *1*



What are the common factors? *1, 2, 3, 6*

What is the highest common factor? *6*

Counting in Multiples of 6,7 & 9 – Lesson 9

Question	Answer
	Can you spot any patterns in the multiples of 6, 7 and 9? Think about whether the multiples are odd or even, the digit total of the multiples, and the pattern of the ones and tens digits. There might not be a pattern for all the multiples of each number. Are there any tips for remembering the multiples of 6, 7 and 9? Think about links to other times tables.

Colour Key

Multiples of 6:

Multiples of 7:

Multiples of 9:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Multiples of 6	Multiples of 7	Multiples of 9
All even. *Digit totals are 3, 6 or 9.* *Multiples are double the multiples of 3.*	*Alternately odd and even*	*Alternately odd and even.* *Digit total is 9.* *The ones digits decrease while the tens digits increase.*

a) 6 12 18 24 30 36

b) 49 42 35 28 21 14

c) 36 45 54 63 72 81

d) 90 84 78 72 66 60

e) 56 63 70 77 84 91

f) 132 126 120 114 108 102

g) 99 108 117 126 135 144

h) 112 119 126 133 140

i) 174 180 186 192 198

j) 210 203 196 189 175

Complete the following sequences:

k) 35 41 47 53 59 65 71 77 83 89 95 101 107 113

l) 2 11 20 29 38 47 56 65 74 83 92 101 110 119

m) 40 47 54 61 68 75 82 89 96 103 110 117 124 131

n) 100 106 112 118 124 130 136 142 148 154 160 166 172 178

o) 99 106 113 120 127 134 141 148 155 162 169 176 183 190

p) 300 291 282 273 264 255 246 237 228 219 210 201 192 183

q) 172 166 160 154 148 142 136 130 124 118 112 106 100 94

r) 31 40 49 58 67 76 85 94 103 112 121 130 139 148

s) 86 79 72 65 58 51 44 37 30 23 16 9 2

Counting in Multiples of 25 & 1,000 – Lesson 10

Counting in 25s Worksheet

Aim – I can count in 25s from any given number.

Can you complete these sequences by counting in 25s?

1.

0	25	50	75	100

2.

175	200	225	250	275

3.

550	575	600	625	650

4.

900	925	950	975	1,000

5.

225	250	275	300	325

6.

675	700	725	750	775

Look at these sequences which start from a number other than 0 but still go up in 25s. In each line one of the numbers is wrong. Can you circle it? The first one is done for you.

1. 55 **70** 105 130 155 180
2. 16 41 **56** 91 116 141
3. 115 140 165 190 **212** 240
4. 499 524 549 574 **594** 624
5. 879 904 **939** 954 979 1004
6. **1042** 1076 1101 1126 1151 1176

Counting in 1000 Not From 0

a. 4013 6013

b. 8472 6472

c. 4706 8706

d. 11293 10293

e. 7038 10038

f. 12720 9720

g. 24671 22671

h. 20337 21337

i. 45405 46405

j. 64049 63049

k. 105892, 106892, 107892, 108892, 109892, 110892

l. 387315, 388315, 389315, 390315, 391315, 392315

m. 741012, 742012, 743012, 744012, 745012, 746012

n. 288891, 289891, 291891, 292891, 293891, 294891

o. 597098, 598098, 599098, 600098, 602098, 603098

p. 924660, 925660, 926660, 927660, 928660, 929660