- Use negative numbers in context and calculate intervals across zero

The temperature at 12 midday is 16°C. By 11pm the temperature drops to –31°C. By how much does the temperature fall?

–47°C

Billy and Jo have £564.32 in their bank account. They pay for a holiday which includes:

- Aeroplane tickets at £243.21
- Hotel accommodation at £428.17
- What will their account balance be after paying for the holiday?

–£107.06

Put these temperatures in order from coolest to warmest:
1°C, –3°C, –8°C, –31°C, 12°C, –11°C, 35°C, 0°C

–31°C	–11°C	–8°C	–3°C	0°C	1°C	12°C	35°C

- Compare and order numbers up to 10,000,000

Order the numbers from smallest to largest.

99,054,703	687,211	99,871,642	73,988,453	8,785,614	8,784,614
687,211	8,784,614	8,785,614	73,988,453	99,054,703	99,871,642

- Identify common factors, common multiples and prime numbers

What are the common factors for 18 and 24?	1, 2, 3 and 6
What is the lowest common multiple for 8 and 12?	24

Highlight all the prime numbers									
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

- Round any whole number to a required degree of accuracy

	Nearest ten	Nearest hundred	Nearest thousand	Nearest ten-thousand	Nearest hundred-thousand	Nearest million
9,875,411	9,875,410	9,875,400	9,875,000	9,880,000	9,900,000	10,000,000
30,105	30,110	30,100	30,000	30,000	0	0
47,032,565	47,032,570	47,032,600	47,033,000	47,030,000	47,000,000	47,000,000
4,423,423	4,423,420	4,423,400	4,423,000	4,420,000	4,400,000	4,000,000
239,300,010	239,300,010	239,300,000	239,300,000	239,300,000	239,300,000	239,000,000

- Identify the value of each digit to 3 decimal places

Write the of the underlined digit of each number.

3.9<u>8</u>7 → 0.08

61.08<u>1</u> → 0.001

0.<u>6</u>13 → 0.6

66.<u>6</u>15 → 0.6

0.0<u>4</u>5 → 0.04

98.90<u>8</u> → 0.008

- Use knowledge of order of operations to carry out calculations involving four operations

Use the order of operations (BODMAS) to work out the following:

$35 - 7 \times (6 + 8) =$	-63	$7 \times (3 + 5) + 6 =$	62
$(2 + 9) \times (10 - 5) =$	55	$42 - 7 \times (6 + 8) =$	-56

- Multiply: 4-digit by 2-digit

Complete the column method multiplication questions

3,977 x 17 =

	3	9	7	7
x		^{6}	^{5}	1_{4} 7
2	7	8	3	9
3_{1}	9_{1}	7_{1}	7	0
6	7	6	0	9

8,103 x 64 =

		8	1	0	3
	x		^{1}	6_{1}	4
	3	2	4	1	2
4_{1}	8	6	1	8	0
5	1	8	5	9	2

2,674 x 93 =

		2	6	7	4
	6^{x}	$^{6\ 2}$	$^{3\ 2}$	9_{1}	3
		8	0	2	2
2	4	0	6	6	0
2	4	8	6	8	2

6,633 x 28 =

		6	6	3	3
	1^{x}	^{5}	^{2}	2_{2}	8
	5	3	0	6	4
1	3	2	6_{1}	6	0
1	8	5	7	2	4

- Divide: 4-digit by 2-digit

Complete the questions

4,992 ÷ 32 =

			1	5	6
3	2	4	9	9	2

5,304 ÷ 78 =

				6	8
7	8	5	3	0	4

6,992 ÷ 19 =

			3	6	8	$\frac{6}{19}$
1	9	6	9	9	8	

6,730 ÷ 5 =

	1	3	4	6
5	6	7	3	0

- Add and subtract fractions with different denominators and mixed numbers

$\frac{7}{8} + \frac{5}{6} = 1\ \frac{34}{48}$

$\frac{4}{5} - \frac{3}{4} = \frac{1}{20}$

$1\ \frac{1}{3} + \frac{1}{2} = 1\ \frac{5}{6}$

$5\ \frac{1}{3} - \frac{2}{5} = 4\ \frac{14}{15}$

- Multiply simple pairs of proper fractions, writing the answer in the simplest form.

				answer	simplest form
$\frac{1}{4}$	x	$\frac{4}{7}$	=	$\frac{4}{28}$	$\frac{1}{7}$
$\frac{3}{4}$	x	$\frac{1}{3}$	=	$\frac{3}{12}$	$\frac{1}{4}$
$\frac{5}{6}$	x	$\frac{3}{8}$	=	$\frac{15}{48}$	$\frac{3}{16}$
$\frac{2}{5}$	x	$\frac{5}{9}$	=	$\frac{10}{45}$	$\frac{2}{9}$

- Divide proper fractions by whole numbers

$\frac{5}{8}$	÷	4	=	$\frac{5}{32}$
$\frac{7}{9}$	÷	3	=	$\frac{7}{27}$
$\frac{1}{2}$	÷	6	=	$\frac{1}{12}$
$\frac{3}{4}$	÷	8	=	$\frac{3}{32}$

- Calculate % of whole number

75% of 64 =	48
90% of 9,650 =	8685
12% of 12 =	1.44
60% of 1,200 =	720