Maths

Calculation Policy

Place value – multiplying and dividing by 10,100 and 1,000

2024

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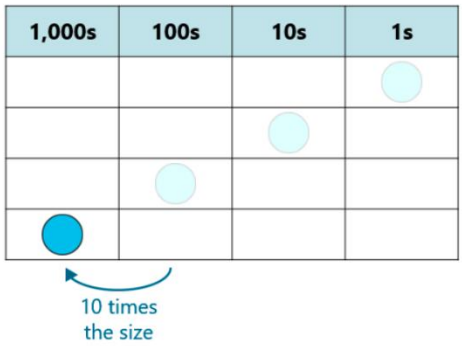
Year 2 – counting in 10's and recognising the patterns.

Year Three:

- I can partition a one, two and three digit number
  See place value

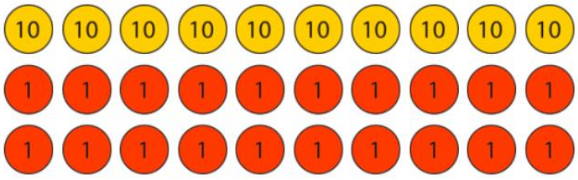
- I can place a one and two digit number in a place value chart
  See place value

- I can understand the relationship between the columns in a place value chart



- I can multiply a one digit number by 10

1. $12 \times 10 = \boxed{120}$



2.

$6 \times 10 = \boxed{60}$

1,000s	100s	10s	1s
			6
		6	0

↓ × 10

Think of '6' and make it ten times the size.

10 times the size | 10 times the size | 10 times the size

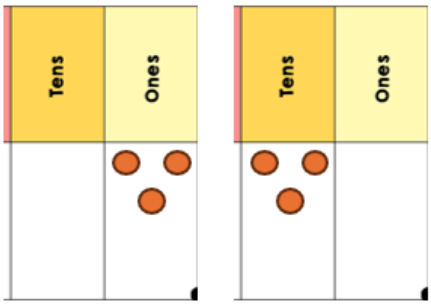
3. Rule:
   a. Write your number
   b. Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
   c. How many columns are you moving? Look at the number of 0s
   d. Move your digit that many columns
   e. Add any place holders (ones, tens column)

6	×	1	0	=			
							6
						6	0

🗝 I can use known facts to multiply by 10

- Put 3 counters in ones column, replace them with tens counters → what's happened? (Multiplied by 10)

- Compare: which is larger? Why? How many times larger?



🗝 I can divide a 3 digit number by 10

1. $40 \div 10 = \boxed{4}$

4 tens 40

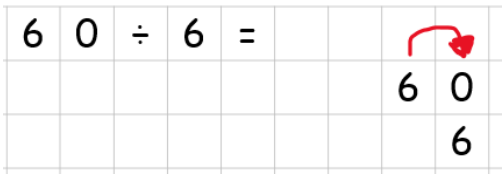
4 ones 4

2. $90 \div 10 = \boxed{9}$

	1,000s	100s	10s	1s
↓ ÷ 10			9	0
				9

10 times the size 10 times the size 10 times the size

3. Rule:
   a. Write your number
   b. Which way are we moving?
      Multiply is left (getting bigger)
      Division is right (getting smaller)
   c. How many columns are you moving? Look at the number of 0s
   d. Move your digit that many columns
   e. Add/remove any place holders



Year Four:

- I can partition a one, two, three and four digit numbers
  See place value
- I can place up to four digit numbers in a place value chart
  See place value
- I can understand the relationship between the columns in a place value chart
  See previous year group

- I can multiply a one-digit number by 10

  See previous year group

- I can multiply a two-digit number by 10

- I can multiply a three-digit number by 10

34 X 10

Rule:

1. Write your number
2. Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
3. How many columns are you moving? Look at the number of 0s
4. Move your digit that many column
5. Add/remove any place holders

- I can use known facts to multiply by 10

  See previous year group

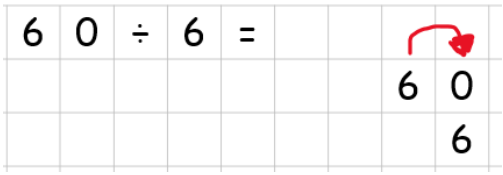
- I can divide a 2 digit and 3 digit number by 10

  See previous year group

- I can divide a 4 digit number by 10

Rule:

a. Write your number
b. Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
c. How many columns are you moving? Look at the number of 0s
d. Move your digit that many columns
e. Add/remove any place holders



Year Five:

- I can partition numbers up to 1,000,000 including decimals

  See place value

- I can place numbers up to 1,000,000 including decimals on a place value chart

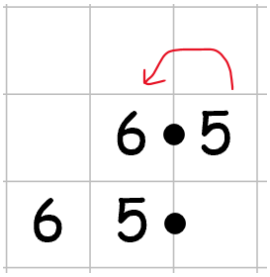
  See place value

- I can understand the relationship between the columns in a place value chart
  See place value

- I can multiply a two-digit number by 10
  See previous year group

- I can multiply a three-digit number by 10
  See previous year group

- I can multiply a four-digit number by 10 (including decimals)



Rule:

a) Write your number
b) Put in the decimal point
c) Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
d) How many columns are you moving? Look at the number of 0s
e) Move your digit that many column
f) Add/remove any place holders
g) Don't need any place holders after the decimal point in this example.

- I can multiply a five-digit number by 10 (including decimals)
  Use previous method

- I can multiply a one-digit number by 100 (including decimals)
  Use previous method

- I can multiply a two-digit number by 100 (including decimals)
  Use previous method

- I can multiply a three-digit number by 100 (including decimals)
  Use previous method

- I can multiply a four-digit number by 100 (including decimals)
  Use previous method

- I can multiply a five-digit number by 100 (including decimals)
  Use previous method

- I can multiply a one-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a two-digit number by 1000 (including decimals)
  Use previous method

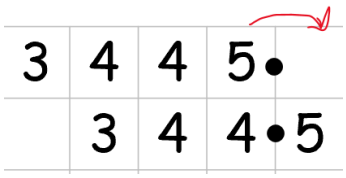
- I can multiply a three-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a four-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a five-digit number by 1000 (including decimals)
  Use previous method

- I can divide a 4 digit number by 10
  See previous year group

- I can divide a five-digit number by 10 (including decimals)



Rule:

a) Write your number
b) Put in the decimal point
c) Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
d) How many columns are you moving? Look at the number of 0s
e) Move your digit that many columns
f) Add/remove any place holders

- I can divide a one-digit number by 100 (including decimals)
  Use previous method

- I can divide a two-digit number by 100 (including decimals)
  Use previous method

- I can divide a three-digit number by 100 (including decimals)
  Use previous method

- I can divide a four-digit number by 100 (including decimals)
  Use previous method

- I can divide a five-digit number by 100 (including decimals)
  Use previous method

- I can divide a one-digit number by 1000 (including decimals)
  Use previous method

- I can divide a two-digit number by 1000 (including decimals)
  Use previous method

- I can divide a three-digit number by 1000 (including decimals)
  Use previous method

- I can divide a four-digit number by 1000 (including decimals)
  Use previous method

- I can divide a five-digit number by 1000 (including decimals)
  Use previous method

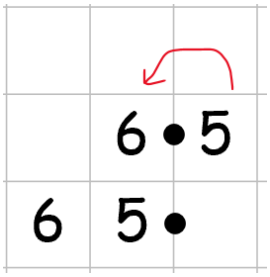
Year Six

Same as Year Five but include numbers beyond 1,000,000 and decimals for all objectives.

- I can partition a numbers up to 10,000,000 including decimals
  See place value

- I can understand the relationship between the columns in a place value chart
  See place value

- I can multiply a four-digit number by 10 (including decimals)



Rule:

a) Write your number
b) Put in the decimal point
c) Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
d) How many columns are you moving? Look at the number of 0s
e) Move your digit that many column
f) Add/remove any place holders
g) Don't need any place holders after the decimal point in this example.

- I can multiply a five-digit number by 10 (including decimals)
  Use previous method

- I can multiply a six-digit number by 10 (including decimals)
  Use previous method

- I can multiply a one-digit number by 100 (including decimals)
  Use previous method

- I can multiply a two-digit number by 100 (including decimals)
  Use previous method

- I can multiply a three-digit number by 100 (including decimals)
  Use previous method

- I can multiply a four-digit number by 100 (including decimals)
  Use previous method

- I can multiply a five-digit number by 100 (including decimals)
  Use previous method

- I can multiply a six-digit number by 100 (including decimals)
  Use previous method

- I can multiply a one-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a two-digit number by 1000 (including decimals)
  Use previous method

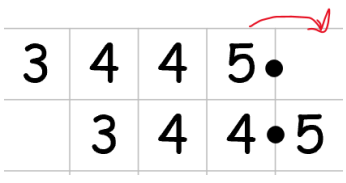
- I can multiply a three-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a four-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a five-digit number by 1000 (including decimals)
  Use previous method

- I can multiply a six-digit number by 1000 (including decimals)
  Use previous method

- I can divide a five-digit number by 10 (including decimals)



Rule:

a) Write your number
b) Put in the decimal point
c) Which way are we moving? Multiply is left (getting bigger) Division is right (getting smaller)
d) How many columns are you moving? Look at the number of 0s
e) Move your digit that many columns
f) Add/remove any place holders

- I can divide a one-digit number by 100 (including decimals)
  Use previous method

- I can divide a two-digit number by 100 (including decimals)

Use previous method

- I can divide a three-digit number by 100 (including decimals)
  Use previous method

- I can divide a four-digit number by 100 (including decimals)
  Use previous method

- I can divide a five-digit number by 100 (including decimals)
  Use previous method

- I can divide a six-digit number by 100 (including decimals)
  Use previous method

- I can divide a one-digit number by 1000 (including decimals)
  Use previous method

- I can divide a two-digit number by 1000 (including decimals)
  Use previous method

- I can divide a three-digit number by 1000 (including decimals)
  Use previous method

- I can divide a four-digit number by 1000 (including decimals)
  Use previous method

- I can divide a five-digit number by 1000 (including decimals)
  Use previous method

- I can divide a six-digit number by 1000 (including decimals)
  Use previous method