

MATH · Y3-Y6

Place Value

Knowledge Organiser — KS2

Key vocabulary

1

Digit

One of the symbols 0-9. The number 247 has three digits.

2

Place value

The value of a digit depending on its position. The 4 in 247 is worth 40, not 4.

3

Column

Each position in a number — ones, tens, hundreds, thousands, etc.

4

Round

Make a number simpler while keeping it close. 47 rounds to 50 to the nearest 10.

5

Compare

Decide which number is bigger using $<$, $>$ or $=$.

6

Order

Put numbers in size order, smallest to largest or largest to smallest.

7

Decimal

A number with a point and digits after it. 3.7 is a decimal.

8

Negative

A number less than zero. -5 is five below zero.



Place value columns

From millions to thousandths

- Millions: 1,000,000
- Hundred thousands: 100,000
- Ten thousands: 10,000
- Thousands: 1,000
- Hundreds: 100
- Tens: 10
- Ones (Units): 1
- Tenths: 0.1 (= 1/10)
- Hundredths: 0.01 (= 1/100)
- Thousandths: 0.001 (= 1/1000)
- Each column is 10 times the column to its right.

Rounding rules

How to round to any place

- Find the column you're rounding to.
- Look at the digit immediately to the RIGHT of that column.
- If it's 5 or more, round UP. If it's 4 or less, round DOWN (stay the same).
- Examples: 47 to nearest 10 → 50. 42 to nearest 10 → 40. 4567 to nearest 100 → 4600.
- Negative numbers: 'rounding up' means closer to zero. -47 to nearest 10 → -50.
- Decimals: 3.567 to 1dp → 3.6 (look at the 6 in hundredths, it's 5 or more, so round up).

Common mistakes to avoid



Don't 'add a zero' when multiplying by 10 — for whole numbers it looks like that, but for decimals $0.6 \times 10 = 6$, not 0.60. The digits actually move one place left. Don't forget that the column to the LEFT is bigger by 10 times — so '23,456' is much bigger than '2,346' because the leftmost digit's column matters most. When rounding, look only at the next digit to the right — not the whole rest of the number. 4,499 rounded to the nearest 100 is 4,500 because the next digit is 9, not because 99 'looks high'. With negative numbers, remember -7 is SMALLER than -3 even though 7 is bigger than 3.

