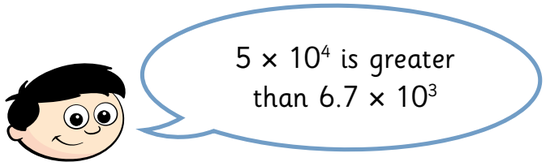
Compare and order numbers in standard form

1 Dexter is comparing numbers in standard form.



Do you agree with Dexter? _____

Explain your answer.

_____

_____

Write >, < or = to complete the statements.

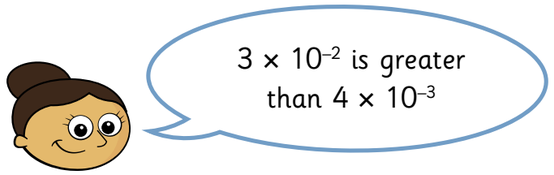
a) 6.5×10^3 ◯ 6.5×10^4

b) 8.3×10^5 ◯ 8×10^5

c) 1.7×10^3 ◯ 1.70×10^3

d) 4.8×10^6 ◯ 4.9×10^5

2 Dora is also comparing numbers in standard form.



Do you agree with Dora? _____

Explain your answer.

_____

_____

Write >, < or = to complete the statements.

a) 6.05×10^{-3} ◯ 6.5×10^{-4}

b) 8.3×10^{-2} ◯ 8×10^{-2}

c) 1.7×10^{-3} ◯ 1.70×10^{-3}

d) 4.8×10^{-4} ◯ 4.9×10^{-4}

3 Tick the greater number in the pairs of numbers.

a) 10 $\quad 10^6$

b) $10^3 \quad 10^{-3}$

c) $10^{-3} \quad 10^{-4}$

d) $9.4 \times 10^3 \quad 4.9 \times 10^4$

e) $9.4 \times 10^{-3} \quad 4.9 \times 10^4$

f) $9.4 \times 10^{-3} \quad 4.9 \times 10^{-4}$

4 Write the numbers in ascending order.

4.6	4.56	4.06	4.169

_____

5 **a)** Tick any numbers that are greater than 5.3×10^{12}

8.9×10^{11} $\quad 2 \times 10^{12}$ $\quad 5.39 \times 10^{12}$ $\quad 9 \times 10^{11}$

b) Tick any numbers that are less than 6.4×10^{10}

6.48×10^{10} $\quad 6.3 \times 10^{11}$ $\quad 6.4 \times 10^{9}$ $\quad 6.014 \times 10^{10}$

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c) Tick any numbers that are greater than 5.2×10^{-2}

5.2×10^{-3} 5.2×10^{-1} 5.22×10^{-2} 5.21×10^{-2}

d) Tick any numbers that are less than 3.6×10^{-3}

3.5×10^{-3} 3.59×10^{-3} 3.6×10^{-3} 3.6×10^{-2}

6 Write the numbers in ascending order.

a) 3.5×10^{6} 3.4×10^{7} 3.47×10^{6} 3×10^{8}

b) 2.4×10^{-2} 2.41×10^{-1} 2.14×10^{-2} 2.05×10^{-1}

c) 8.5×10^{-2} 8.5×10^{2} 8.5×10^{-1} 8.051×10^{1}

7 **a)** The table shows the masses of the planets in our solar system.

Planet	Mass (kg)
Mercury	3.30×10^{23}
Venus	4.87×10^{24}
Earth	5.97×10^{24}
Mars	6.42×10^{23}
Jupiter	1.90×10^{27}
Saturn	5.68×10^{26}
Uranus	8.68×10^{25}
Neptune	1.02×10^{26}

List the planets in order of their mass, starting with the lightest.

b) Here are the masses of three types of particle.

proton	neutron	electron
1.6726×10^{-24} g	1.6749×10^{-24} g	9.1094×10^{-28} g

List the particles in order of their mass, starting with the lightest.

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