Interleaved: calculating with standard form

1

Work out $(3 \times 10^4) \times (2 \times 10^5)$.
Give your answer in standard form.

Which method? **Add the powers** | Subtract the powers | Ordinary numbers first

$3 \times 2 = 6$, $10^9 \times 10^5 = 10^9$

6×10^9

Answer

2

Work out $(5 \times 10^6) + (3 \times 10^5)$.
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | **Ordinary numbers first**

Answer

3

Work out $(8 \times 10^9) \div (2 \times 10^3)$.
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | Ordinary numbers first

Answer

4

Work out $(7.2 \times 10^5) - (4 \times 10^4)$.
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | Ordinary numbers first

Answer

5

Work out $(4 \times 10^3) \times (5 \times 10^6)$.
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | Ordinary numbers first

Answer

6

Work out $(3 \times 10^8) \div (6 \times 10^2)$.
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | Ordinary numbers first

Answer

7

A forest has about 3×10^5 trees.
Each tree has about 6×10^4 leaves.
Roughly how many leaves are in the forest?
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | Ordinary numbers first

Answer

8

A shop sold 2.4×10^5 phone cases in January and 9×10^4 in February. How many did it sell in the two months altogether?
Give your answer in standard form.

Which method? Add the powers | Subtract the powers | Ordinary numbers first

Answer

Interleaved: calculating with standard form *further practice*

9

A hard drive holds 8×10^{12} bytes.
A film takes up 4×10^9 bytes.
How many films fit on the hard drive?

Answer

10

Work out $(2.5 \times 10^4) \times (3 \times 10^{-2})$.
Give your answer in standard form.

Answer

11

Work out $(6.4 \times 10^{-3}) + (3 \times 10^{-4})$.
Give your answer in standard form.

Answer

12

A sheet of paper is 8×10^{-3} cm thick.
How tall is a pile of 5×10^2 sheets?
Give your answer as an ordinary number.

Answer

13

An elephant has a mass of about 6×10^3 kg.
A mouse has a mass of about 2×10^{-2} kg.
How many times heavier is the elephant than the mouse? Give your answer in standard form.

Answer

14

A space probe must travel 3.1×10^8 km.
So far it has travelled 6×10^7 km.
How far does it still have to go?
Give your answer in standard form.

Answer

15

Work out $(5 \times 10^4)^2$. Give your answer in standard form.

Answer

16

Ella says $(4 \times 10^5) + (2 \times 10^5) = 6 \times 10^{10}$.
Explain her mistake and give the right answer.

Answer