



Name: _____

Date: _____

1. Write 45000 in standard form

$$4.5 \times 10^4$$

(1)

2. Write 0.00067 in standard form

$$6.7 \times 10^{-4}$$

(1)

3. Write 8.3×10^5 as an ordinary number

$$830000$$

(1)

4. Write 4.91×10^{-3} as an ordinary number

$$0.00491$$

(1)

5. Write 7,200,000 in standard form

$$7.2 \times 10^6$$

(1)

6. Write 0.000000841 in standard form

$$8.41 \times 10^{-7}$$

(1)

7. Write 2.6×10^{-1} as an ordinary number

$$0.26$$

(1)

8. Write 9.04×10^7 as an ordinary number

$$90400000$$

(1)

9. Write these numbers in order of size from smallest to largest:

$$57 \times 10^5 \quad 5.7 \times 10^2 \quad 0.00057 \quad 5.7 \times 10^5$$

$$0.00057, 5.7 \times 10^2, 5.7 \times 10^5, 57 \times 10^3$$

(2)

10. Write these numbers in order of size from smallest to largest:

$$8.2 \times 10^{-1} \quad 82 \times 10^{-5} \quad 0.0082 \quad 8.2 \times 10^{-6}$$

$$8.2 \times 10^{-6}, 82 \times 10^{-5}, 0.0082, 8.2 \times 10^{-1}$$

(2)

11. Calculate:

$$(5 \times 10^4) \times (3 \times 10^{-2})$$

Give your answer in standard form.

$$1.5 \times 10^3$$

(2)

12. Calculate:

$$(5 \times 10^6) \times (2 \times 10^3)$$

Give your answer in standard form.

$$1 \times 10^{10}$$

(2)

13. Calculate:

$$(3.2 \times 10^5) \div (8 \times 10^{-2})$$

Give your answer in standard form.

$$4 \times 10^6$$

(2)

14. Calculate:

$$(9 \times 10^{-3}) \div (3 \times 10^2)$$

Give your answer in standard form.

$$3 \times 10^{-5}$$

(2)

15. The mass of a grain of sand is 4.6×10^{-5} g.

A container holds 8.2×10^6 grains.

Calculate the total mass.

Give your answer in standard form.

$$3.772 \times 10^2 \text{ g}$$

(2)

16. Calculate:

$$\frac{6.8 \times 10^9}{4 \times 10^3}$$

Give your answer in standard form.

$$1.7 \times 10^6$$

(3)

17. Calculate:

$$(3 \times 10^5) + (4 \times 10^5)$$

Give your answer in standard form.

$$7 \times 10^5$$

(1)

18. Calculate:

$$(7.2 \times 10^6) - (1.8 \times 10^4)$$

Give your answer in standard form.

$$7.182 \times 10^6$$

(2)

19. Calculate:

$$(4.5 \times 10^4) + (3 \times 10^3)$$

Give your answer in standard form.

$$4.8 \times 10^4$$

(3)

20. Calculate:

$$(8.2 \times 10^{-3}) - (5 \times 10^{-4})$$

Give your answer in standard form.

$$7.7 \times 10^{-3}$$

(3)

21. The diameter of Mars is 6.78×10^3 km.

The diameter of Jupiter is 1.40×10^5 km.

How many times bigger is Jupiter than Mars?

$$2.06 \times 10^1$$

(3)

22. The mass of one electron is 9.11×10^{-31} kg.

What is the total mass of 5×10^{12} electrons?

Give your answer in standard form.

$$4.555 \times 10^{-18} \text{ kg}$$

