

Dividing Two Numbers in Standard Form



Dividing Two Numbers in Standard Form

1. Work out the calculations.

Give your answers in standard form.

- a) $(8 \times 10^4) \div 2$
- b) $(6 \times 10^{-3}) \div 3$
- c) $(9.24 \times 10^6) \div 10^2$

2. Work out the divisions.

Give your answers in standard form.

- a) $(4 \times 10^6) \div (2 \times 10^2)$
- b) $(6 \times 10^4) \div (1.5 \times 10^3)$
- c) $(3.4 \times 10^5) \div (2 \times 10^3)$

3. Complete the calculations.

Give your answers in standard form.

- a) $(6 \times 10^7) \div (4 \times 10^4)$
- b) $(3.5 \times 10^6) \div (7 \times 10^3)$
- c) $(9 \times 10^5) \div (1.5 \times 10^3)$
- d) $(7 \times 10^5) \div (2 \times 10^{-2})$
- e) $(2.4 \times 10^3) \div (4 \times 10^2)$
- f) $(3 \times 10^9) \div (7.5 \times 10^{-2})$
- g) $(4.8 \times 10^5) \div (1.6 \times 10^2)$
- h) $(2.56 \times 10^6) \div (3.2 \times 10^9)$



Dividing Two Numbers in Standard Form

4. A grain of salt weighs approximately 6×10^{-5} g.

How many grains of salt are in a 750 g packet?

5. A grain of rice weighs approximately 2.5×10^{-2} g.

How many grains would you expect in a bag weighing 1 kg?

6. Estimated information about Earth's surface, in km^2 , is shown below.

Water	Land	Total
3.6×10^8		5.1×10^8

What percentage of Earth's surface is covered by land?

Give your answer to 1 significant figure.



Answers



Dividing Two Numbers in Standard Form

1. Work out the calculations.

Give your answers in standard form.

a) $(8 \times 10^4) \div 2 = 4 \times 10^4$

b) $(6 \times 10^{-3}) \div 3 = 2 \times 10^{-3}$

c) $(9.24 \times 10^6) \div 10^2 = 9.24 \times 10^4$

2. Work out the divisions.

Give your answers in standard form.

a) $(4 \times 10^6) \div (2 \times 10^2) = 2 \times 10^4$

b) $(6 \times 10^4) \div (1.5 \times 10^3) = 4 \times 10$

c) $(3.4 \times 10^5) \div (2 \times 10^3) = 1.7 \times 10^2$

3. Complete the calculations.

Give your answers in standard form.

a) $(6 \times 10^7) \div (4 \times 10^4) = 1.5 \times 10^3$

b) $(9 \times 10^5) \div (1.5 \times 10^3) = 6 \times 10^2$

c) $(7 \times 10^5) \div (2 \times 10^{-2}) = 3.5 \times 10^7$

d) $(3.5 \times 10^6) \div (7 \times 10^3) = 5 \times 10^2$

e) $(2.4 \times 10^3) \div (4 \times 10^2) = 6$

f) $(3 \times 10^9) \div (7.5 \times 10^{-2}) = 4 \times 10^{10}$

g) $(4.8 \times 10^5) \div (1.6 \times 10^2) = 3 \times 10^3$

h) $(2.56 \times 10^6) \div (3.2 \times 10^9) = 8 \times 10^{-4}$



Dividing Two Numbers in Standard Form

4. A grain of salt weighs approximately 6×10^{-5} g.

How many grains of salt are in a 750 g packet?

$$750 \div (6 \times 10^{-5}) = 1.25 \times 10^7$$

5. A grain of rice weighs approximately 2.5×10^{-2} g.

How many grains would you expect in a bag weighing 1 kg?

$$1000 \div (2.5 \times 10^{-2}) = 4 \times 10^4$$

6. Estimated information about Earth's surface, in km^2 , is shown below.

Water	Land	Total
3.6×10^8	1.5×10^8	5.1×10^8

What percentage of Earth's surface is covered by land?

Give your answer to 1 significant figure.

$$29.41 \approx 30\%$$

