

Multiplying Two Numbers in Standard Form



Multiplying Two Numbers in Standard Form

1. Work out the calculations.

Give your answers in standard form.

a) $4 \times (2 \times 10^4)$

b) $(3 \times 10^{-3}) \times 3$

c) $(9.24 \times 10^6) \times 10$

2. Work out the calculations.

Give your answers in standard form

a) $(4 \times 10^4) \times (2 \times 10^2)$

b) $(3 \times 10^{-1}) \times (3 \times 10^{-3})$

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

3. Complete the multiplications.

Give your answers in standard form.

a) $(6 \times 10^5) \times (4 \times 10^4)$

b) $(5 \times 10^7) \times (7 \times 10^3)$

c) $(6 \times 10^6) \times (2.5 \times 10^3)$

d) $(3 \times 10^{-2}) \times (7.1 \times 10^6)$

e) $(4.2 \times 10^{-3}) \times (5 \times 10^{-5})$

f) $(5.4 \times 10^5) \times (2.5 \times 10^2)$

g) $(6.1 \times 10^7) \times (4.2 \times 10^4)$

h) $(3.5 \times 10^5) \times (5.1 \times 10^3) \times (2 \times 10^2)$



Multiplying Two Numbers in Standard Form

4. Given that,

$$A = 3 \times 10^5, B = 2.5 \times 10^4, C = 3.4 \times 10^7$$

find the value of each of these expressions.

a) AB

b) B^2

c) $AB - C$

d) ABC

e) $A^2C + B$

5. The International Space Station orbits Earth at a speed of 2.8×10^4 km per hour.

a) How far does it travel in 1 day?

b) How far does it travel in 1 year?



Answers



Multiplying Two Numbers in Standard Form

1. Work out the calculations.

Give your answers in standard form.

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

b) $(3 \times 10^{-3}) \times 3 = 9 \times 10^{-3}$

c) $(9.24 \times 10^6) \times 10 = 9.24 \times 10^7$

2. Work out the calculations.

Give your answers in standard form

a) $(4 \times 10^4) \times (2 \times 10^2) = 8 \times 10^6$

b) $(3 \times 10^{-1}) \times (3 \times 10^{-3}) = 9 \times 10^{-4}$

c) $(3.4 \times 10^5) \times (2 \times 10^3) = 6.8 \times 10^8$

3. Complete the multiplications.

Give your answers in standard form.

a) $(6 \times 10^5) \times (4 \times 10^4) = 2.4 \times 10^{10}$

b) $(5 \times 10^7) \times (7 \times 10^3) = 3.5 \times 10^{11}$

c) $(6 \times 10^6) \times (2.5 \times 10^3) = 1.5 \times 10^{10}$

d) $(3 \times 10^{-2}) \times (7.1 \times 10^6) = 2.13 \times 10^5$

e) $(4.2 \times 10^{-3}) \times (5 \times 10^{-5}) = 2.1 \times 10^{-7}$

f) $(5.4 \times 10^5) \times (2.5 \times 10^2) = 1.35 \times 10^8$

g) $(6.1 \times 10^7) \times (4.2 \times 10^4) = 2.562 \times 10^{12}$

h) $(3.5 \times 10^5) \times (5.1 \times 10^3) \times (2 \times 10^2)$
 $= 3.57 \times 10^{11}$



Multiplying Two Numbers in Standard Form

4. Given that,

$$A = 3 \times 10^5, B = 2.5 \times 10^4, C = 3.4 \times 10^7$$

find the value of each of these expressions.

a) $AB = 7.5 \times 10^9$

b) $B^2 = 6.25 \times 10^8$

c) $AB - C = 7.466 \times 10^9$

d) $ABC = 2.55 \times 10^{17}$

e) $A^2C + B = 3.06 \times 10^{18}$

5. The International Space Station orbits Earth at a speed of 2.8×10^4 km per hour.

a) How far does it travel in 1 day?

$$6.72 \times 10^5 \text{ km}$$

b) How far does it travel in 1 year?

$$2.4528 \times 10^8 \text{ km}$$

