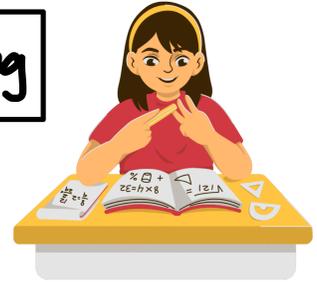


# Integers - Video #2 : Multiplying and Dividing



## Part A:

$$1) -3(-6) \\ = +18$$

$$2) 7(-3) \\ = -21$$

$$\begin{array}{l} \cancel{7} \times \cancel{-3} \\ 7 \times (-3) \\ = -21 \end{array}$$

$$3) -14 \div 2 \\ = -7$$

$$4) -14 \div (-2) \\ = +7$$

NOTE: Any number multiplied by zero is zero

$$\text{eg. } 7(0) = 0 \\ -3(0) = 0$$

Rule: If the two integers multiplied together have:

• The SAME SIGN

- x -

+ x +

final answer will be positive  
(+)

• DIFFERENT SIGNS

+ x -

- x +

final answer will be negative  
(-)

same Rules for Division:

$$\begin{array}{l} - \div - \quad | \quad \frac{-}{-} \quad \text{eg. } \frac{-4}{-2} \\ + \div + \quad | \quad \frac{+}{+} \end{array}$$

+ ans.

$$\begin{array}{l} + \div - \quad | \quad \frac{+}{-} \\ - \div + \quad | \quad \frac{-}{+} \end{array}$$

∴ Final ans is - (neg)

## Part B:

$$\begin{aligned} \text{a) } 20 \div (-5) \\ &= \frac{20}{-5} \\ &= -4 \end{aligned}$$

$$\begin{aligned} \text{b) } 100 \div 10 \\ &= \frac{100}{10} \\ &= +10 \end{aligned}$$

$$\begin{aligned} \text{c) } \frac{-14}{-7} \\ &= +2 \end{aligned}$$

$$\begin{aligned} \text{d) } \frac{-28}{7} \\ &= -4 \end{aligned}$$

NOTE:

$$\frac{0}{\#} = 0$$

(always equal zero).

BUT:  $\frac{\#}{0} \rightarrow$  impossible.

YOU TRY:

① a)  $6(-5)$     b)  $-3(2)$     c)  $-4(-1)$     d)  $10 \div (-2)$

e)  $\frac{16}{-2}$     f)  $\frac{-24}{-8}$     g)  $7(0)$     h)  $100 \div 0$

i)  $0 \div 100$

Answers:

a) -30    b) -6    c) +4    d) -5    e) -8    f) +3    g) 0

h) undefined/  
impossible    i) 0

② a)  $6 - (-5)$     b)  $7 - 3$     c)  $5(-2)$     d)  $-2(-4)$     e)  $0 \div 7$

f)  $6 \div 0$     g)  $0(8)$

Answers:

a)  $6 + 5 = 11$     b) 4    c) -10    d) 8    e) 0    f) undefined/  
impossible    g) 0