Integers - Video #2 : Multiplying and Dividing

Part A :

1) $-3(-6)$

$= +18$

2) $7(-3)$

$= -21$

3) $-14 \div 2$

$= -7$

4) $-14 \div (-2)$

$= +7$

NOTE: Any number multiplied by zero is zero

eg. $7(0) = 0$

$-3(0) = 0$

Rule : If the two integers multiplied together have :

- The SAME SIGN

$- \times -$

$+ \times +$

final answer will be positive (+)

- DIFFERENT SIGNS

$+ \times -$

$- \times +$

final answer will be negative (−)

same Rules for Division :

$- \div -$ OR $\frac{-}{-}$ eg. $\frac{-4}{-2}$

$+ \div +$ | $\frac{+}{+}$

+ ans.

$+ \div -$ OR $\frac{+}{-}$

$- \div +$ | $\frac{-}{+}$

∴ Final ans is − (neg)

Part B:

a) $20 \div (-5)$

$= \frac{20}{-5}$

$= -4$

b) $100 \div 10$

$= \frac{100}{10}$

$= +10$

c) $\frac{-14}{-7}$

$= +2$

d) $\frac{28}{-7}$

$= -4$

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