# INTEGER RULES – STUDY GUIDE

## ADDITION

### SAME SIGNS

⇒ **ADD the absolute values.**

⇒ **Keep the sign the same.**

5 + 2 = +7

– 3 + (– 5) = – 8

### DIFFERENT SIGNS

⇒ **SUBTRACT the absolute values.**

⇒ **Keep sign of the number with the larger absolute value.**

(– 3) + 8 = + 5

6 + (– 10) = – 4

## SUBTRACTION

⇒ **ADD the OPPOSITE of the second integer. "Keep, Change, Change"**

⇒ **Follow the rules for addition.**

7 – 4
7 + (– 4) = 3

9 – (– 6)
9 + (+ 6) = + 15

–12 – 2
–12 + (– 2) = – 14

– 10 – (– 4)
– 10 + (+ 4) = – 6

## MULTIPLICATION

### SAME SIGNS

⇒ **Product is ALWAYS POSITIVE**

(8)(4) = + 32

(– 5)( – 4) = + 20

### DIFFERENT SIGNS

⇒ **Product is ALWAYS NEGATIVE**

(9)( – 5) = – 45

(– 3)(2) = – 6

## DIVISION

### SAME SIGNS

⇒ **Quotient is ALWAYS POSITIVE**

$\frac{24}{4}$ = + 6

$\frac{-36}{-4}$ = + 9

### DIFFERENT SIGNS

⇒ **Quotient is ALWAYS NEGATIVE**

$\frac{50}{-5}$ = – 10

$\frac{-28}{7}$ = – 4