Integer Operations

Integer Addition Rules:

- If the signs are alike, just add the numbers and make answer positive if both numbers are positive and negative if both are negative

  ex: 4 + 3 = 7

  ex: -4 + (-3) = -7

- If the signs are different, subtract the numbers and take sign of the larger number

  ex: 12 + (-3) = 9

  ex: 3 + (-12) = -9

Integer Subtraction Rules:

- Change the subtraction sign to addition and flip the sign of the number after the subtraction sign (if it was negative, make it positive & if it was positive, make it negative). Then just follow integer addition rules.

  ex: 5 – (-10)
  ⟶   5 + (+10) = 15

  ex: 5 – 10
  ⟶   5 + (-10) = -5

Integer Multiplication Rules:

- Positive · Positive = Positive

  ex: 5 · 4 = 20

- Negative · Negative = Positive

  ex: -5 · (-4) = 20

- Positive · Negative = Negative

  ex: 5 · (-4) = -20

- Negative · Positive = Negative

  ex: -5 · 4 = -20

Integer Division Rules:

- Positive ÷ Positive = Positive

  ex: 36 ÷ 4 = 9

- Negative ÷ Negative = Positive

  ex: -36 ÷ (-4) = 9

- Positive ÷ Negative = Negative

  ex: 36 ÷ (-4) = -9

- Negative ÷ Positive = Negative

  ex: -36 ÷ 4 = -9