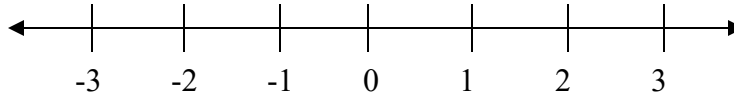


Elementary Review #1 – Integers

An *integer* is a positive or negative whole number. We can think of integers by using a number line, with positive going to the right, and negative going to the left.



Why have negative numbers? Many things must be modeled this way – think of temperature, money... even golf scores! We proceed under the assumption that you have already learned this.

(Interlude - Algebra Tiles)

Example 1: Adding integers!

(a) $5+7=12$ (b) $-3+(-6)=-9$ (c) $7+(-5)=2$ (d) $15+(-18)=-3$

Example 2: Subtracting integers!

You can think of subtracting as “adding the opposite”

(a) $\begin{array}{l} 3-5 \\ =3+(-5)=-2 \end{array}$ (b) $\begin{array}{l} -6-(-5) \\ =-6+5=-1 \end{array}$

Example 3 (Open Question): The sum of two integers is -4 . What could the integers be?

There are infinitely many answers to this question. The key point is that one integer must be negative.

Example 4: Multiplying / Dividing integers!

Rule: If both numbers have the same sign, the result will be positive.
If the numbers have opposite signs, the result will be negative.

(a) $-5 \times 3 = -15$ (b) $-6 \div 3 = -2$ (c) $(-8)(-12)=96$ (d) $\frac{(18)}{(3)}=6$

Example 5: Mr. Kempe’s friend recently went to a casino, planning to spend no more than \$100. He won \$23 on blackjack, lost \$89 at poker, won \$35 at the roulette wheel, and (amazingly) spent \$78 on slots, but won nothing. Did he stay within his plan?

$\$100 + \$23 - \$89 + \$35 - \$78 = \-9 Close, but not quite!

Practice: Skills Review Package – pg. 6 #1 – 7ace, pg. 7 #1 – 4 ace