

KEY

0-3: Operations with Integers

Ex #1: Please find each sum or difference.

(a) $4 + 6 = \boxed{10}$

(b) $4 - 6 = \boxed{-2}$

(c) $-4 + 6 = \boxed{2}$

(d) $-4 - 6 = \boxed{-10}$

(e) $4 - (-6) = 4 + 6 = \boxed{10}$

(f) $-80 + 106 = \boxed{26}$

(g) $-43 - 17 = \boxed{-60}$

$$\begin{array}{r} 43 \\ +17 \\ \hline 60 \end{array}$$

(h) $-43 + 17 = \boxed{-26}$

$$\begin{array}{r} 3\ 13 \\ 43 \\ -17 \\ \hline 26 \end{array}$$

(i) $12 - 36 = \boxed{-24}$

$$\begin{array}{r} 36 \\ -12 \\ \hline 24 \end{array}$$

(j) $-1 + 53 = \boxed{52}$

Ex #2: Please fill in the blanks.

A **POSITIVE** number multiplied (or divided) by a **POSITIVE** number is always positive.

A **POSITIVE** number multiplied (or divided) by a **NEGATIVE** number is always negative.

A **NEGATIVE** number multiplied (or divided) by a **POSITIVE** number is always negative.

A **NEGATIVE** number multiplied (or divided) by a **NEGATIVE** number is always positive.

Ex #3: Please find each sum or product.

(a) $64 \div -8 = \boxed{-8}$

(b) $12(-6) = \boxed{-72}$

$$\begin{array}{r} 12 \\ \times 6 \\ \hline 72 \end{array}$$

(c) $-4 \div -1 = \boxed{4}$

(d) $-300 \div 2 = \boxed{-150}$

$$\begin{array}{r} 15 \\ -300 \\ \hline -150 \\ \hline 1 \end{array}$$

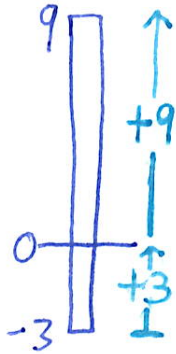
(e) $-23 \cdot -4 = \boxed{92}$

$$\begin{array}{r} 23 \\ \times 4 \\ \hline 92 \end{array}$$

(f) $-3(2)(-4) = \boxed{24}$

$$\begin{array}{r} -3 \cdot 2 = -6 \\ -6 \cdot -4 = 24 \end{array}$$

Ex #4: If you wake up in the morning and it's -3°C (cold!) and by noon it's 9°C , then how much did the temperature increase overall?



$$+3^{\circ} + 9^{\circ} = \boxed{12^{\circ} \text{ increase}}$$

Ex #5: A concert organizer distributes 50 promotional-codes, each good for a \$4 discount off of a certain show. What is the total amount of discounts combined, for all the promotional-codes?

$$\begin{array}{r} 50 \text{ codes} \\ \times \quad \$4 \\ \hline \$200 \end{array}$$

$$\boxed{\$200 \text{ total in discounts}}$$

Ex #6: Suppose Suzanne makes \$20/hour, and works 12 hours one week. If \$38 is held for taxes, how much does Suzanne receive in total, after taxes?

$$\$20/\text{hour} \times 12 \text{ hours} = \$240 \text{ salary}$$

$$\$240 \text{ salary} - \$38 \text{ taxes} = \boxed{\$202 \text{ in take-home pay}}$$