MathFLIX CHALLENGE

Integer Computation-Rules (Algorithms)

Read the flow chart on the right. Add your own examples to show you understand the idea. Now use the flow chart to help solve the problems below.

Addition

$$^+5 + {}^+10 = \underline{\quad} \qquad ^+5 + {}^-10 = \underline{\quad}$$
$$^-5 + {}^-10 = \underline{\quad} \qquad ^-5 + {}^+10 = \underline{\quad}$$

$$^+5 + {}^+50 = \underline{\quad} \qquad ^-12 + {}^+2 = \underline{\quad}$$
$$^-5 + {}^-40 = \underline{\quad} \qquad ^+12 + {}^-2 = \underline{\quad}$$

Subtraction

$$^-5 - {}^-10 = \underline{\quad} \qquad ^+5 - {}^-10 = \underline{\quad}$$
$$^-5 + \underline{\quad} \qquad\qquad ^+5 + \underline{\quad}$$

$$^+5 - {}^+3 = \underline{\quad} \qquad ^-12 - {}^+2 = \underline{\quad}$$
$$^+5 + \underline{\quad} \qquad\qquad ^-12 + \underline{\quad}$$

Multiplication or Division

$$^+5 \times {}^+10 = \underline{\quad} \qquad ^+5 \times {}^-3 = \underline{\quad}$$
$$^-5 \times {}^-10 = \underline{\quad} \qquad ^-5 \times {}^+4 = \underline{\quad}$$

$$^+10 \div {}^+2 = \underline{\quad} \qquad ^+10 \div {}^-2 = \underline{\quad}$$
$$^-50 \div {}^-5 = \underline{\quad} \qquad ^-50 \div {}^+5 = \underline{\quad}$$

ADDITION

Same signs

Action : add
Sign : given sign

Examples :
$$^+5 + {}^+6 = {}^+11$$
$$^-5 + {}^-6 = {}^-11$$

Your examples :
_____
_____
_____

Different signs

Action : subtract
Sign : use sign from highest number

Examples :
$$^+5 + {}^-6 = {}^-1$$
$$^-5 + {}^+6 = {}^+1$$

Your examples :
_____
_____
_____

SUBTRACTION

Action : Rewrite problem as *addition of the opposite*.

Examples :
$$^-5 - {}^-6 \qquad ^-5 - {}^+6$$
$$^-5 \; + \; {}^+6 \qquad ^-5 \; + \; {}^-6$$

Your examples :
_____
_____
_____

MULTIPLICATION OR DIVISION

Same signs

Action : multiply or divide
Sign : positive (+)

Examples :
$$^+4 \times {}^+2 = {}^+8$$
$$^-4 \times {}^-2 = {}^+8$$
$$^+8 \div {}^+4 = {}^+2$$
$$^-8 \div {}^-4 = {}^+2$$

Your examples :
_____
_____
_____

Different signs

Action : multiply or divide
Sign : negative (-)

Examples :
$$^+4 \times {}^-2 = {}^-8$$
$$^-4 \times {}^+2 = {}^-8$$
$$^+8 \div {}^-4 = {}^-2$$
$$^-8 \div {}^+4 = {}^-2$$

Your examples :
_____
_____
_____