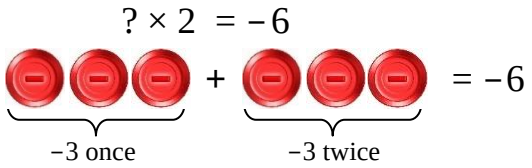
Check Your Answers on Dividing Integers!

1. 4

Yes, it is possible to use your earliest understanding of division (how many times does −1 "go into" −4) to arrive at the answer of 4. Using a red chip to represent −1, it is not difficult to visualize the number of red chips there are in −4 which is obviously 4.

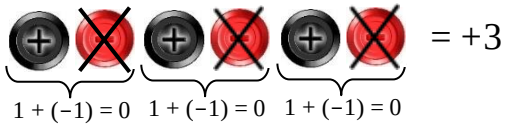
2. −3

Recall that division is the inverse operation of multiplication. If −6 ÷ 2 is equal to some number, then some number multiplied by 2 (or repeated twice) will equal −6. Using chips once more, it is clear that −3 is the correct response.



3. −3

Again recall that division is the inverse operation of multiplication. If 3 ÷ −1 = some number, then some number multiplied by −1 is equal to +3. Finding the number that will produce +3 when multiplied by −1 can be difficult to visualize, even with chips. As described in the guide to Multiplying Integers, multiplying by a *positive* number indicates the number of times that number is added. Multiplying by a *negative* number would therefore indicate the number of times that number is subtracted. So some number multiplied by (−1) means that some number of red chips are taken away (from 0) once and in this case produce 3 black (positive) chips. As shown to the right, the answer is −3 (3 red chips are taken away from 0 once).



4. 2

It is again possible to use your earliest understanding of division (how many times does −2 "go into" −4), visualizing the number of groups of 2 red chips that are present within 4 red chips which is obviously 2. It is as simple to consider that division is the inverse operation of multiplication. If −4 ÷ −2 = some number, then some number multiplied by −2 produces −4 or how many times must 2 red chips be repeated to produce 4 red chips which is also obviously 2? Can you mentally picture those positives and negatives without actually seeing those "chips"?

5. −5

You may want to generalize based on the patterns emerging: when integers with the same sign are divided, the answer is positive. When integers with different signs are divided, the answer is negative.

6. −2

Yes, of course!

7. 0

Remember that division is the inverse operation of multiplication. Consider what number multiplied by −4 would produce 0. (Still confused by division involving 0? Check out the last 2 examples on the Guide to Dividing Integers.)

8. 1

Don't forget the order of operations: multiply and divide in order from left to right!

9. 1

Yes, you could determine the sign of the answer before dividing in order from left to right.

10. 2

Well done!!

Perfect score? Yes! You've got this!! You're ready to move on to the next section!!!

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