math Antics Worksheets

Name: _____

Date: _____

Multiplying Integers

A-MDI 1

Instructions: Count the number of negative factors to figure out if the answer will be positive or negative. If there is an **even** number of negative factors, the answer will be positive. If there is an **odd** number of negative factors, the answer will be negative. **Note: The parentheses () mean the numbers are being multiplied together.**

1. $(-1)(-1)(-1) = -1$
2. $(1)(-1)(-1) = +1$
3. $(1)(-1)(1)(-1) = +1$
4. $(1)(-1)(-1)(-1) = -1$
5. $(-1)(-1)(-1)(-1) = +1$
6. $(-1)(1)(-1)(-1) = -1$
7. $(-1)(-1)(-1)(-1)(-1) = -1$
8. $(-1)(1)(-1)(-1)(-1) = +1$

Instructions: Multply these integers.

1. $3 \times -3 = -9$
2. $-4 \times -4 = 16$
3. $-8 \times 2 = -16$
4. $5 \times -6 = -30$
5. $-6 \times -3 = 18$
6. $-3 \times -7 = 21$
7. $12 \times -4 = -48$
8. $-10 \times 10 = -100$
9. $-3 \times -3 \times -3 = -27$
10. $7 \times -1 \times -7 = 49$
11. $4 \times -5 \times 3 = -60$
12. $-8 \times -2 \times 5 = 80$
13. $(-3)(2)(-1)(-6) = -36$
14. $(-2)(-2)(-2)(-2) = 16$

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Dividing Integers

A-MDI 2

Instructions: Divide these integers.

1. $15 \div {}^{-}5 = -3$
2. $10 \div {}^{-}2 = -5$
3. $\frac{{}^{-}20}{{}^{-}10} = 2$
4. $\frac{{}^{-}12}{3} = -4$
5. ${}^{-}25 \div 5 = -5$
6. $\frac{{}^{-}16}{{}^{-}4} = 4$
7. ${}^{-}36 \div {}^{-}6 = 6$
8. $\frac{60}{{}^{-}10} = -6$
9. $\frac{{}^{-}49}{{}^{-}7} = 7$
10. $\frac{45}{{}^{-}9} = -5$
11. $48 \div {}^{-}6 = -8$
12. ${}^{-}30 \div {}^{-}5 = 6$
13. ${}^{-}56 \div 8 = -7$
14. $\frac{{}^{-}90}{10} = -9$
15. $\frac{{}^{-}88}{{}^{-}11} = 8$
16. $\frac{{}^{-}50}{{}^{-}25} = 2$
17. $77 \div {}^{-}7 = -11$
18. $\frac{{}^{-}32}{8} = -4$

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Multiplying and Dividing Integers

A-MDI 3

Instructions: Simplify these expressions that contain both multiplication and division.

1 $\frac{-6}{-3} \times -7$

2×-7

-14

2 $-4 \times \frac{-10}{2}$

-4×-5

20

3 $\frac{18}{-3} \times \frac{-14}{7}$

-6×-2

12

4 $\frac{-2 \times 8}{-4}$

$\frac{-16}{-4}$

4

5 $\frac{16}{-2} \times \frac{-9}{-3}$

-8×3

-24

6 $\frac{-40}{-5 \times -8}$

$\frac{-40}{40}$

-1

7 $\frac{-6 \times 12}{-3 \times -1 \times -3}$

$\frac{-72}{-9}$

8

8 $\frac{-5 \times -6}{-2 \times 3}$

$\frac{30}{-6}$

-5

9 $-3 \times \frac{-22}{-2}$

-3×11

-33

10 $\frac{-6 \times -4}{-1 \times 8}$

$\frac{24}{-8}$

-3

11 $\frac{5 \times -1 \times -12}{-2 \times -10}$

$\frac{60}{20}$

3

12 $\frac{-12 \times -6 \times -1}{3 \times -3 \times -1}$

$\frac{-72}{9}$

-8

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Integer Arithmetic

A-MDI 4

Instructions: Simplify these expressions. **Caution!** - These also contain integer addition and subtraction, so you will need to do those operations using the rules you learned in the last video about Adding And Subtracting Integers.

Remember the Order of Operations Rules and remember that the tops and bottoms of the fractions form groups, even though parentheses are not shown.

1 $\frac{-9}{-3} + -2$

$3 + -2$

1

2 $\frac{10 - -2}{-4}$

$\frac{12}{-4}$

-3

3 $\frac{15}{-3} + \frac{-20}{-4}$

$-5 + 5$

0

4 $-7 - \frac{-21}{7}$

$-7 - -3$

-4

5 $\frac{-8}{-2} + \frac{-42}{-6}$

$4 + 7$

11

6 $\frac{30}{-5 - 1}$

$\frac{30}{-6}$

-5

7 $\frac{-7 + -3}{-2 \times 5}$

$\frac{-10}{-10}$

1

8 $-1 - \frac{-18}{-2}$

$-1 - 9$

-10

9 $\frac{3 \times -8}{-2 - 2}$

$\frac{-24}{-4}$

6

10 $\frac{-6 + -10}{-1 + -1 \times 3}$

$\frac{-16}{-1 + -3}$

$\frac{-16}{-4} = 4$

11 $\frac{8 + -8 \times -4}{-2 \times 10}$

$\frac{8 + 32}{-20}$

$\frac{40}{-20} = -2$

12 $\frac{-5 \times -5 + -4}{4 + -3 \times -1}$

$\frac{25 + -4}{4 + 3}$

$\frac{21}{7} = 3$