

UNIT 1: SIMPLIFY EXPRESSIONS

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Objectives: I can solve problems by multiplying and dividing integers.

Multiplying and Dividing Integers

Rules for multiplying & dividing integers:

If the signs are the **same**: the answer is **positive**

If the signs are **different**: the answer is **negative**

Multiplication answer is a product.

Division answer is a quotient.

Practice

Solve.

same 1 $-6 \cdot (-2) = 12$

same 4 $-2 \cdot -3 = 6$

diff 7 $3 \cdot (-10) = -30$

10 $-2 \cdot 10 \cdot (-4) = 80$
even

diff 2 $5 \cdot -3 = -15$

diff 5 $5 \div (-1) = -5$

same 8 $\frac{-36}{-9} = 4$

11 $10 \cdot (-6) \cdot (-2) \cdot (5) = 600$
even

diff 3 $3 \cdot -5 = -15$

same 6 $-24 \div -3 = 8$

diff 9 $-6 \cdot 4 = -24$

diff 12 $\frac{54}{-6} = -9$

Homework

Find each product or quotient.

1. $4 \cdot (-12)$

2. $-24 \div (-6)$

3. $8 \cdot (-6)$

4. $\frac{-15}{5}$

5. $-4 \cdot (-7)$

6. $-12 \div 2$

7. $-5 \cdot 8$

8. $\frac{-34}{-34}$

9. $7 \cdot (-6)$

10. $-25 \div 5$

11. $-6 \cdot (-15)$

12. $\frac{10}{-2}$

13. $-7 \cdot -3$

14. $12 \div 2$

15. $7 \cdot -11$

16. $-80 \div (-8)$

17. $30 \cdot (-6)$

18. $\frac{-50}{5}$

19. $-10 \cdot 2 \cdot (-3)$

20. $-50 \div 10 \cdot (-5)$

Evaluate if $w = -2$, $x = -10$, $y = 16$, & $z = 8$.

21. wx

22. wxy

23. $\frac{z}{w}$

24. xy

RULE

even # of negatives
+ result

odd # of negatives
- result

Hint for #'s 19 & 20

Homework is continued on the next pages with an ERQ.

(Write your answer on the grid provided.)

