Chapter 1 **Practice Test – Please Show Your Work**

Answers

Each # is in its own "house" Find Absolute Value 1st!

1. $|-9| + |12| =$

$+9 + ^+12 = ^+21$

The #'s are in the same house. Have to ADD 1st. Then find the Absolute value.

2. $|8 + -13| =$

$|-5| = ^+5$

1. $^+21$

2. $^+5$

3. Order the values from <u>least</u> to <u>greatest</u>, then graph them on the number line. Be sure to write the numbers in their <u>ORIGINAL FORM.</u>

$$-9, \quad |-8|, \quad 4, \quad |7|, \quad -3$$

Put the dot ON the line.

3. smallest # is -9

largest # is |-8|

4. You're standing atop a 12 foot ramp you made in Fortnite. You see another player at the valley floor 15 feet below ground level. What is the <u>distance</u> between you and the other player?

must be (+)

you ^+12ft

0 ft (ground level)

on <u>opposite</u> sides of 0. <u>ADD</u> absolute values

$|+12| + |-15| = 12+15 = 27ft.$

$\leftarrow -15$ ← your mortal enemy!

4. (27 ft.)

Evaluate the expression.

5. $-9 + 8 = -1$
SUBTRACT

6. $-24 + (-9) = -33$
ADD

7. $18 - (-7) = +25$
ADD

8. $-14 - (-5) = -9$
SUBTRACT

9. $-9(7) = -63$
Remove Balloons go ↓ = ⊖

10. $-13(-8) = +104$
remove weights go ↑ = ⊕

$10(8) = 80$
$3(8) = 24$

$\begin{array}{r} 80 \\ +24 \\ \hline 104 \end{array}$

11. $-72 \div (-6) = +12$
remove weights go ↑ = ⊕

12. $\begin{array}{r} -110 \\ \hline 11 \end{array}$

$11(-10) = -110$

~~remove~~ add weights go ↓ (-)

5. -1

6. -33

7. $+25$

8. -9

9. -63

10. $+104$

11. $+12$

12. -10

odd # of Negatives = (−)

13. $-12(-9)(-4) = -$

$[+108(-4)]$
(-432)

$100(4) = 400$
$8(4) = 32$
$\overline{} \ 432$

14. $(-9) \div 0$

can **NOT**
divide by zero
or the universe
goes **KABOOM!**

Answers

13. $\quad (-432)$

14. $\underline{(undefined)}$

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15. $-12(8) + (-42) \div (-6)$

$-48 + {}^+7 = (-41)$

↓ ↑
SUBTRACT

16. $9 - 18 \div (-3) + 5$

$9 - (-6) + 5$
↑ ↑ ↑
$15 + 5 = (20)$

15. $\quad (-41)$

16. $\quad (+20)$

Evaluate the expression

17. $(-9)^2$ ← The (−) is inside the parentheses, so it is **ALSO** **SQUARED**

$(-9)(-9)$
$= (+81)$

18. -12^2

There aren't any parentheses, so the (−) is **NOT** squared, only the 12.

$-(12)(12) = (-144)$

17. $\quad (+81)$

18. $\quad (-144)$

Find the next two numbers in the pattern.

19. $5, -15, 45, -135, \ldots$

Repeatedly **Multiplying/Dividing** be a **NEGATIVE #** cause the signs to flip back & forth

$100 \cdot 3 = 300$

35
$\times 3$
$\overline{105}$

$+5(-3) = -15 \qquad -15(-3) = +45 \qquad +45(-3) = -135$
$-135(-3) = (+405) \qquad +405(-3) = (-1,215)$

19. $\quad \dfrac{+405,}{-1215}$

$400 \cdot 3 = 1200$

$5 \cdot 3 = 15$

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20. The table shows the temperature in Des Moines, Iowa, for certain times during a particular day. Based on the given five temperatures, what is the **average temperature** for the day?

20. $\quad (-4°F)$

← **NOT** finding average time.

Time	3 A.M.	8 A.M.	1 P.M.	5 P.M.	10 P.M.
Temperature	−21°F	-18F	18°F	12F	−11°F

Avereage: Add up the #'s, then divide by the amount of #s you added

① Add the Negatives ② Add the (+)

$\begin{array}{r} -21 \\ -18 \\ + \ -11 \\ \hline (-50) \end{array}$
↓

③ Then add those #'s
$+$
SUBTRACT

$\begin{array}{r} +18 \\ + \ +12 \\ \hline (+30) \end{array} = -20$
↑

Now ÷ by 5

$\dfrac{-20}{5} = (-4°F)$