

Unit 1 Test A STUDY GUIDE – GSE – Operations with Integers
Show ALL work!

Name: Key Date: _____ Class: _____

1. A hot air balloon starts from the ground and floats 235ft. off the ground. It then increases another 165 ft. What is the balloon's final height?



2. Determine the absolute value of each: 400

$|-2| = \underline{2}$ $|23| = \underline{23}$ $|-100| = \underline{100}$

3. Find the opposite of each:

-12 12 34 -34 -100 100

4. Order the numbers from least to greatest: $-22, 11, 1, -11, 21, -31$

-31, -22, -11, 1, 11, 21

5. Rewrite these numbers in order from smallest to largest.

~~151~~ ~~-32~~ ~~0~~ ~~-42~~ ~~3~~ ~~3~~
-42, -32, -3, 0, 3, 5

6. Circle the number with the GREATER value:

-21 or -22 5 or -8 -110 or 0

7. Explain the difference between ABSOLUTE VALUE and OPPOSITES.

Absolute value is the # of steps it takes a # to get to 0. opposites are the same # steps to 0, on oppo different sides of 0.

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SOLVE. SHOW ALL WORK.

$$\begin{array}{r} 14 \\ 2350 \\ -172 \\ \hline 178 \end{array}$$

8. $-350 + 172 = -178$

9. $-245 + (-333) = -578$

$$\begin{array}{r} 245 \\ +333 \\ \hline 578 \end{array}$$

10. $-12 \times 8 = -96$

11. $-48 \div 3 = -16$

12. $27 + 37 = 64$

$$\begin{array}{r} 27 \\ +37 \\ \hline 64 \end{array}$$

13. $-10 + 7 = -3$

$$\begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$$

14. $75 + (-50) = 25$

$$\begin{array}{r} 75 \\ -50 \\ \hline 25 \end{array}$$

15. $-95 + (-12) = -117$

$$\begin{array}{r} 95 \\ +12 \\ \hline 117 \end{array}$$

16. $2 + (-6) + (-12) = -16$

$$\begin{array}{r} 2 \\ -6 \\ -12 \\ \hline -16 \end{array}$$

17. $-10 + 7 + 5 = 2$

$$\begin{array}{r} 10 \\ -7 \\ +5 \\ \hline 2 \end{array}$$

18. $5 + -40 + 6 = -29$

$$\begin{array}{r} 40 \\ -5 \\ \hline 35 \\ 235 \\ -6 \\ \hline 29 \end{array}$$

19. $-4(3)(-1)(-2) = -24$

$$-4 \times 3 = 12$$

$$(-12)(-1) = 12$$

$$(12)(-2) = -24$$

20. $6(-3) - 5 = -23$

21. $-36 \div -12 + 4(3) = 15$

$6(-3) = -18$

$$\begin{array}{r} -18 \\ -5 \\ \hline -23 \end{array}$$

$$\begin{array}{r} 3 \\ 12 \overline{) 36} \\ \underline{-36} \\ 0 \end{array}$$

$$3 + 4(3)$$

$$3 + 12$$

$$15$$

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2. The list below gives monthly average low temperatures (in ° Fahrenheit) for Seneca Falls, NY from November to March.

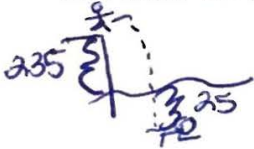
51°F, 15°F, 0°F, -6°F, -13°F, 32°F, 11°F

- a. What is the lowest of these monthly low temperatures? -13°F
b. What is the difference between the highest and lowest temperature?

64°F

$$51 - (-13) \quad \begin{array}{r} 51 \\ +13 \\ \hline 64 \end{array}$$

23. Jorge dove off a cliff. The cliff was 235 feet above sea level. He dove into the water and went 25 feet below sea level. How far in total did he dive?



$$235 + 25$$

$$\begin{array}{r} 235 \\ +25 \\ \hline 260 \end{array}$$

260 ft

24. Jeff started out with \$350 in his bank account. He spent \$45 to buy a sweatshirt for the ballgame. He earned \$25 walking dogs and \$34 mowing lawns. How much money is now in his account?

$$\begin{array}{r} 350 \\ -45 \\ \hline 305 \end{array} \quad \begin{array}{r} 305 \\ +25 \\ \hline 330 \end{array}$$

$$350 - 45 + 25 + 34$$

$$305 + 25 + 34$$

$$330 + 34$$

$$\begin{array}{r} 330 \\ +34 \\ \hline 364 \end{array}$$

\$364

25. Once a parachute is deployed, a skydiver descends at a rate of about 5 meters per second. Where will the skydiver be in relation to where the parachute deployed after 4 seconds?

5 per 1 sec
5 x (secs)

$$5 \times 4 = \underline{20 \text{ meters}}$$

26. Sarai says that $\frac{-28}{-4} = 7$, while Dove says that $\frac{-28}{-4} = -7$. Explain which of the girls is correct and why:

Sarai is correct, because a neg. # divided by a neg. # is a positive #. The 2 negs. cancel each other out.