

Answer Key

7th Grade

Accentuate the Negative - UNIT REVIEW

Re-write each problem as an addition problem and solve.

1. $29 - 57 =$

2. $37 - 63 =$

$$\begin{array}{r} 5 13 \\ 3 \\ -37 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 417 \\ 57 \\ -29 \\ \hline 28 \end{array}$$

$29 + -57 = -28$

$37 + -63 = -26$

3. $70 - (-79) =$

4. $(-190) - 89 =$

$70 + +79 = 149$

$-190 + -89 = -279$

$$\begin{array}{r} 1 \\ 190 \\ 89 \\ \hline 279 \end{array}$$

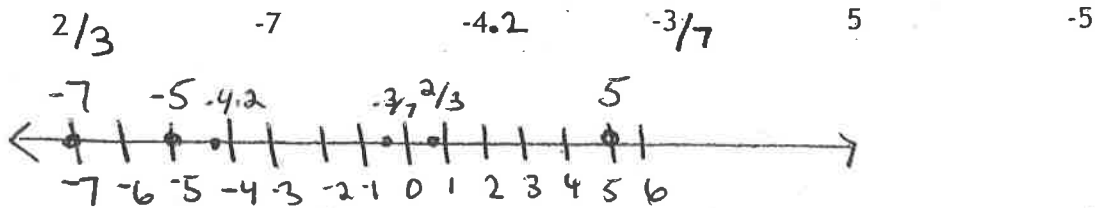
5. Use this information: Suppose you are in a building in which the floors are numbered from 0 to 15. The building has an underground parking garage with 10 levels, which are numbered from -1 to -10. Which floor is *farther from floor -2*?

a. floor -7 or floor -10 $-2 \xrightarrow{+0} -7 = -5$ $-2 \xrightarrow{+0} -10 = -8$

b. floor 2 or floor -6 $-2 \xrightarrow{+0} 2 = 4$ $-2 \xrightarrow{+0} -6 = +4$
 same

c. floor 3 or floor -4 $-2 \xrightarrow{+0} 3 = +5$ $-2 \xrightarrow{+0} -4 = -2$

6. Draw a number line to order the following rational numbers.



7. Replace the ? with the correct symbol

$6 ? -3$

a. =

b. <

c. >

8. Evaluate:

a. $5 \times (-4) = -20$

b. $(-6) \times (-2) = 12$

c. $15 \div (-3) = -5$

d. $(-12) \div (-2) = 6$

9. Simplify each expression (show all your steps!)

a. $9 \times (4 - 6)^2 + 3$

$$9 \times (-2)^2 + 3$$

$$(9 \times 4) + 3$$

$$36 + 3 = 39$$

b. $-18 \div 6 \times 4^2 + (-10)$

$$(-18 \div 6 \times 16) + -10$$

$$(-3 \times 16) + -10$$

$$-48 + -10 = -58$$

c. $3 \times 5 - 2^3 + 5$

$$(3 \times 5) - 8 + 5$$

$$15 - 8 + 5$$

$$= 12$$

d. $25 \times [(-3) + 21 \div 3]$

$$25 \times (-3 + 7)$$

$$25 \times 4$$

$$= 100$$

10. Graph the inequalities.

a. $x < 2$



b. $x \geq 5$



11. The list below gives monthly average low temperatures (in degrees Fahrenheit) for International Falls, Minnesota from November through March.

Average Low Temperatures (°F) in International Falls, Minnesota

November	December	January	February	March
15	5	-12	-4	20

a. What is the lowest and highest of these monthly low temperatures?

$$\underline{-12} \quad \underline{20}$$

b. What is the difference between the highest and lowest temperatures?

$$20 - -12 = 32$$

c. What is the average temperature from November through March?

$$\frac{\text{mean}}{15 + 5 + -12 + -4 + 20 = 24 \div 5 = 4\frac{4}{5}}$$

or 4.8°

12. Expand $2(5 + x)$

$$2 \cdot 5 + 2 \cdot x$$

$$10 + 2x$$

14. Expand $3(4 + 8)$

$$3 \cdot 4 + 3 \cdot 8$$

13. Factor $4 \times 5 - 4 \times (-1)$

$$4(5 - (-1))$$

15. Factor $2 \times 5 + 2 \times 3$

$$2(5 + 3)$$