Review

1. Write six-thousand eighty three. _____	9. Add: $\begin{array}{r} -\ 8 \\ +10 \\ \hline \end{array}$ _____	15. Add: $\begin{array}{r} -27 \\ -52 \\ \hline \end{array}$ _____
2. What is the total degree difference if the temperature one day was -1°C in the morning and $+9^{\circ}$C at night? (a) 8°C (c) -8°C (b) 10°C (d) -10°C _____	10. Multiply: $\begin{array}{r} -12 \\ -\ 7 \\ \hline \end{array}$ _____	16. Divide: -12 by -6 _____
3. Add: 9,983 and 475 _____	11. Divide: -28 by $+4$ _____	17. Multiply: $\begin{array}{r} +14 \\ -\ 4 \\ \hline \end{array}$ _____
4. What is 45,623 rounded off to the nearest hundred? _____	12. Subtract: $\begin{array}{r} -31 \\ +\ 9 \\ \hline \end{array}$ _____	18. Add: $\begin{array}{r} +12 \\ -30 \\ \hline \end{array}$ _____
5. From 3,004 subtract 316. _____	13. Multiply: $\begin{array}{r} -5 \\ +2 \\ \hline \end{array}$ _____	19. Divide: $+60$ by -15 _____
6. Multiply: $\begin{array}{r} 632 \\ \times\ 49 \\ \hline \end{array}$ _____	14. Subtract: $\begin{array}{r} +42 \\ -\ 6 \\ \hline \end{array}$ _____	20. Subtract: $\begin{array}{r} -15 \\ -\ 9 \\ \hline \end{array}$ _____
7. Divide: 3216 by 8. _____		
8. Divide: $68\overline{)3128}$ _____		

Division of Signed Numbers

> **REMEMBER**
>
> In dividing signed numbers, if the signs are the same, the answer is positive; if the signs are different, the answer is negative. This rule is the same as for multiplication of signed numbers.
>
> Examples: Divide
>
> $$\frac{+10}{+2} = +5 \qquad \frac{-16}{-2} = +8 \qquad \frac{-20}{+4} = -5 \qquad \frac{+24}{-8} = -3$$

1. Divide +14 by +2.

   _____

2. Divide -30 by -6.

   _____

3. Divide:
$$\frac{-15}{+5} =$$

   _____

4. Divide +80 by -4.

   _____

5. Divide -56 by -7.

   _____

6. Divide +48 by +12.

   _____

7. Divide:
$$\frac{+27}{-9}$$

   _____

8. What is the quotient of -40 and +5?

   (a) -200   (c)   -8
   (b) -45   (d)   -35

   _____

9. What is -60 divided by -10?

   (a) +6   (c)   -50
   (b) -6   (d)   -70

   _____

10. What is the quotient of +42 and +2?

   (a) +84   (c)   +40
   (b) -21   (d)   +21

   _____

11. What is +17 divided by -17?

   (a) 0   (c)   -1
   (b) +1   (d)   -289

   _____

12. What is -50 divided by -25?

   (a) +2   (c)   -25
   (b) +25   (d)   -2

   _____

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Solving Equations

REMEMBER

To solve equations such as the following:
Addition and subtraction are opposite
operations as are multiplication and division.

Examples:

$$x + 7 = 0$$
$$\underline{\quad -7 \quad -7}$$
$$x \quad\quad = -7$$

$$x - 5 = 10$$
$$\underline{\quad +5 \quad +5}$$
$$x \quad\quad = 15$$

$$\square - 8 = 2$$
$$\underline{\quad +8 \quad +8}$$
$$\square \quad = 10$$

$\square$ is treated the same way as an x.

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1. Which value of x makes the following sentence true?

$$x + 2 = 6$$

   (a) 8   (c) -4
   (b) 4   (d) 3

   _____

2. Solve for x:

$$x - 8 = 12$$

   _____

3. Solve for x:

$$x + 11 = 20$$

   _____

4. Which value makes the following sentence true?

$$\square - 6 = 10$$

   (a) 4   (c) 16
   (b) -4   (d) -16

   _____

5. Solve for x:

$$-15 = x + 7$$

   _____

6. Solve for x:

$$x - 31 = 42$$

   _____

7. Which value makes the following sentence true?

$$+12 + \square = 24$$

   (a) 12   (c) 0
   (b) $\frac{1}{2}$ (d) -12

   _____

8. Solve for x:

$$19 = x - 18$$

   _____

9. Which value makes the following sentence true?

$$\square + 8 = 17$$

   (a) 17   (c) -17
   (b) -9   (d) +9

   _____

10. Solve for x:

$$x - 13 = -13$$

   _____

Solving Equations (continued)

REMEMBER

In a two-step problem, first get the x-term alone and then divide both sides of the equation by the number next to the x.

Examples:

$$3x-5 = 7$$
$$\underline{+5 \quad +5}$$
$$\frac{3x}{3} = \frac{12}{3}$$
$$x = 4$$

$$6x + 3 = 21$$
$$\underline{- 3 \quad -3}$$
$$\frac{6x}{6} = \frac{18}{6}$$
$$x = 3$$

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1. Solve for x:

$$3x - 2 = 13$$

_____

2. Solve for x:

$$7x + 6 = 48$$

_____

3. Solve for x:

$$8x - 9 = 63$$

_____

4. Solve for x:

$$5x + 4 = -1$$

_____

5. Solve for x:

$$20x - 40 = 80$$

_____

6. Solve for x:

$$6x - 24 = 24$$

_____

7. Solve for x:

$$60 = 5x + 25$$

_____

8. Solve for x:

$$11x + 3 = 58$$

_____

9. Solve for x:

$$16 = 2x - 14$$

_____

10. Solve for x:

$$12x + 5 = 29$$

_____

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