

Adding and Subtracting Sign Numbers

Adding Sign Numbers

Signs are the Same - add the numbers together and keep the sign

$$5 + 16 = 21$$

$$-16 + (-2) = -18$$

$$(-3) + (-4) = -7$$

Signs are Different - subtract the numbers and take the sign of the bigger number

$$15 + (-6) = 9$$

$$-22 + 4 = -18$$

$$13 + (-14) = -1$$

Subtracting Sign Numbers

"Keep - Change - Change"

Use "Keep - Change - Change" and then follow the rules for adding sign numbers.

$$6 - (-4) =$$

$$+6 + (+4)$$

$$6 + 4$$

$$\boxed{10}$$

$$-7 - (-3) =$$

$$-7 + (+3)$$

$$-7 + 3$$

$$\boxed{-4}$$

$$-18 - 2 =$$

$$-18 + \bar{+}2$$

$$-18 + -2$$

$$\boxed{-20}$$

$$14 - 20 =$$

$$+14 + \bar{-}20$$

$$14 + -20$$

$$\boxed{-6}$$

Directions: Find each sum or difference.

$$1. -7 + (-4) = \boxed{-11}$$

$$2. -3 - 7 =$$

$$-3 + \bar{+}7 = -3 + -7 = \boxed{-10}$$

$$3. 5 + (-18) = \boxed{-13}$$

$$4. -15 - (-7) =$$

$$-15 + +7 = -15 + 7 = \boxed{-8}$$

$$5. -13+7 = \boxed{-6}$$

$$6. -15+(-15) = \boxed{-30}$$

$$7. 19-25 =$$

$$+19 + \bar{+}25$$

$$19 + -25 = \boxed{-6}$$

$$8. -15+15 = \boxed{0}$$

$$9. 10-(-10) =$$

$$+10 + (+10)$$

$$10 + 10 = \boxed{20}$$

$$10. 7-(-6)+(-4)-3 =$$

$$\checkmark$$

$$+7 + +6 = 7+6 = 13 + (-4) = 9$$

$$9 - 3 = \boxed{6}$$

$$11. 85-12-(-60)+(-32) =$$

$$\checkmark$$

$$+73 + (+60)$$

$$73 + 60 = 133 + (-32)$$

$$= \boxed{101}$$

$$12. \frac{1}{5} - \frac{4}{5} = \frac{1-4}{5} = \frac{+1 + \bar{0}4}{5}$$

$$\frac{1+-4}{5} = \boxed{\frac{-3}{5}}$$

$$13. \frac{3 \cdot 1}{3 \cdot 2} - \frac{1 \cdot 2}{3 \cdot 2} = \frac{-3}{6} - \frac{2}{6} = \frac{-3-2}{6}$$

LCD = 6

$$\frac{-3 + \bar{0}2}{6} = \frac{-3 + -2}{6}$$

2: 2, 4, 6, 8, 10

3: 3, 6, 9, 12, 15

$$\boxed{\frac{-5}{6}}$$

$$14. \frac{3}{8} - \left(\frac{2 \cdot 3}{2 \cdot 4}\right) =$$

LCD: 8

8: 8, 16, 24

4: 4, 8, 12

$$\frac{3}{8} - \frac{-6}{8} = \frac{3 - -6}{8} = \frac{+3 + +6}{8}$$

$$\frac{3+6}{8} = \boxed{\frac{9}{8}}$$

$$8 \sqrt{\frac{9}{8}} = \boxed{1\frac{1}{8}}$$

$$15. 12.2 + (-14.1) = \boxed{-1.9}$$

$$\begin{array}{r} 14.1 \\ -12.2 \\ \hline 1.9 \end{array}$$

$$16. -94.4 - (13.6) = -94.4 + \bar{13.6}$$

$$-94.4 + -13.6 = \boxed{-108}$$

$$\begin{array}{r} 94.4 \\ 13.6 \\ \hline 108.0 \end{array}$$

$$17. 84.3 - (-12.2) =$$

$$+84.3 + +12.2 = \boxed{96.5}$$

$$\begin{array}{r} 84.3 \\ 12.2 \\ \hline 96.5 \end{array}$$

$$18. -1.27 + 3.2 = \boxed{1.93}$$

$$\begin{array}{r} 3.20 \\ -1.27 \\ \hline 1.93 \end{array}$$

$$19. 2\frac{1}{2} + \left(-5\frac{3}{5}\right) = \frac{5.5}{2.5} + \frac{-28.2}{5.2}$$

LCD: 10

2: 2, 4, 6, 8, 10

5: 5, 10, 15, 20, 25

$$20. -\frac{3}{4} - \left(-1\frac{1}{2}\right) = \frac{-3}{4} - \frac{-3.2}{2.2}$$

LCD: 4

4: 4, 8

2: 2, 4

$$\frac{25}{10} + \frac{-56}{10} = \frac{25 + -56}{10}$$

$$\frac{-3}{4} - \frac{-6}{4} = \frac{-3 + +6}{4}$$

$$\boxed{\frac{-31}{10}} \quad 10 \frac{3}{-30} \boxed{-3\frac{1}{10}}$$

$$\frac{-3 + 6}{4} = \boxed{\frac{3}{4}}$$