

Adding & Subtracting with Unlike Denominators

Add or subtract.

$$1. \frac{4}{7} + \frac{1}{3}$$

$$\frac{12}{21} + \frac{7}{21} = \frac{19}{21}$$

$$2. \frac{1}{2} - \frac{7}{8}$$

$$\frac{4}{8} + \frac{-7}{8} = \frac{-3}{8}$$

$$3. 3\frac{1}{2} + (-7\frac{4}{5})$$

$$\frac{7.5}{2.5} + (-\frac{39}{5.2})$$

$$\frac{49}{63}$$

$$\frac{35}{10} + (-\frac{79}{10}) = -\frac{43}{10}$$

1. Mixed to Improper

$$4. 3\frac{7}{12} + (-2\frac{4}{5})$$

$$\frac{43.5}{12.5} + (-\frac{14}{5.12})$$

$$\frac{215}{60} + (-\frac{168}{60}) = \frac{47}{60}$$

2. Common Denominators

3. Add tops
Keep bottom

4. Simplify.

Evaluate each expression for the given value of the variable.

5. $4\frac{3}{8} + x$ for $x = -3\frac{2}{9}$

$$4\frac{3}{8} + (-3\frac{2}{9})$$

$$\frac{35 \cdot 9}{8 \cdot 9} + (-\frac{29 \cdot 8}{9 \cdot 8})$$

$$\frac{315}{72} + (-\frac{232}{72}) = \frac{83}{72} = 1\frac{11}{72}$$

6. $n - \frac{3}{8}$ for $n = -\frac{4}{5}$

$$-\frac{4 \cdot 8}{5 \cdot 8} - \frac{3 \cdot 5}{8 \cdot 5}$$

$$-\frac{32}{40} + (-\frac{15}{40}) = -\frac{47}{40} = -1\frac{7}{40}$$

7. $\frac{3}{7} + y$ for $y = \frac{1}{2}$

$$\frac{3 \cdot 2}{7 \cdot 2} + \frac{1 \cdot 7}{2 \cdot 7}$$

$$\frac{6}{14} + \frac{7}{14} = \frac{13}{14}$$

8. Gavin needs $2\frac{5}{8}$ yards of fabric each to make two shirts. This amount is cut from a bolt containing $9\frac{1}{4}$ yards of fabric. How much fabric remains on the bolt?

$$9\frac{1}{4} - 2\frac{5}{8}$$

$$\frac{37}{4} - \frac{21}{8}$$

$$\frac{74}{8} - \frac{21}{8} = \frac{53}{8} = 6\frac{5}{8} \text{ yd}$$