

## Guided worksheet on adding two mixed numbers with unlike denominators

Learn how [to add two mixed numbers](#) when they have the different denominators. It is highly recommended for students to fill in all the blanks in each problem given below:

*(Remember, lcd is the key for such problems)*

$$1) \quad 3\frac{1}{9} + 1\frac{2}{3}$$

The first step is to change both the denominators to a common denominator

$$= 3\frac{1}{9} + 1\frac{2 \times 3}{3 \times 3}$$

$$= 3\frac{1}{9} + 1\frac{6}{9}$$

$$= 4\frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

Once the denominators are same, add the numerators to get the numerator for the answering fraction and add whole numbers to find the new whole number.

$$3) \quad 3\frac{2}{5} + 6\frac{4}{8}$$

LCD of 5 and 8 is 40.

$$= 3\frac{2 \times 8}{5 \times \boxed{\phantom{00}}} + 6\frac{\boxed{\phantom{00}} \times \boxed{\phantom{00}}}{8 \times \boxed{\phantom{00}}}$$

$$= \boxed{\phantom{00}}\frac{\boxed{\phantom{00}}}{40} + \boxed{\phantom{00}}\frac{20}{\boxed{\phantom{00}}} = 9\frac{36}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}\frac{9}{\boxed{\phantom{00}}}$$

$$5) \quad 3\frac{5}{18} + 4\frac{7}{27}$$

Least common denominator (lcd) for 18 and 27 = 54.

$$= 3\frac{\boxed{\phantom{00}} \times 3}{18 \times 3} + \boxed{\phantom{00}}\frac{\boxed{\phantom{00}} \times \boxed{\phantom{00}}}{\boxed{\phantom{00}} \times 2}$$

$$= \boxed{\phantom{00}}\frac{\boxed{\phantom{00}}}{54} + 2\frac{14}{\boxed{\phantom{00}}} = 7\frac{\boxed{\phantom{00}}}{54}$$

$$2) \quad 5\frac{8}{12} + 7\frac{4}{15}$$

LCD for 12 and 15 is 60

$$= 5\frac{8 \times 5}{12 \times \boxed{\phantom{00}}} + 7\frac{\boxed{\phantom{00}} \times \boxed{\phantom{00}}}{15 \times \boxed{\phantom{00}}}$$

$$= 5\frac{\boxed{\phantom{00}}}{60} + 7\frac{16}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}\frac{56}{\boxed{\phantom{00}}} = 12\frac{\boxed{\phantom{00}}}{15}$$

$$4) \quad 6\frac{8}{9} + 7\frac{1}{12}$$

LCD for 9 and 12 is 36

$$= 6\frac{8 \times \boxed{\phantom{00}}}{9 \times \boxed{\phantom{00}}} + 7\frac{\boxed{\phantom{00}} \times \boxed{\phantom{00}}}{12 \times \boxed{\phantom{00}}}$$

$$= 6\frac{32}{\boxed{\phantom{00}}} + 7\frac{\boxed{\phantom{00}}}{36} = \boxed{\phantom{00}}\frac{\boxed{\phantom{00}}}{36}$$

$$6) \quad 2\frac{11}{12} + 3\frac{5}{8}$$

Lcd for 12 & 8 = 24

$$= \boxed{\phantom{00}}\frac{\boxed{\phantom{00}} \times 2}{12 \times 2} + 3\frac{\boxed{\phantom{00}} \times \boxed{\phantom{00}}}{\boxed{\phantom{00}} \times 3}$$

$$= \boxed{\phantom{00}}\frac{22}{\boxed{\phantom{00}}} + 3\frac{15}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}\frac{\boxed{\phantom{00}}}{24} = 6\frac{13}{24}$$