

5.6

Adding with Mixed Numbers



Quick Review

To add mixed numbers, follow these steps:

- Change the fractions to equivalent fractions with common denominators.
- Add the fractions.
- Then add the whole numbers.

For example, to add $3\frac{7}{8} + 2\frac{1}{3}$:

$$\begin{aligned} 3\frac{7}{8} + 2\frac{1}{3} &= 3\frac{21}{24} + 2\frac{8}{24} \\ &= 5\frac{29}{24} \\ &= 5 + \frac{24}{24} + \frac{5}{24} \\ &= 5 + 1 + \frac{5}{24} \\ &= 6\frac{5}{24} \end{aligned}$$

Practice

1. Write each mixed number as an improper fraction.

a) $4\frac{3}{4} = \frac{16}{4} + \frac{3}{4}$

$= \frac{\quad}{4}$

b) $4\frac{7}{10} = \frac{\quad}{10} + \frac{\quad}{10}$

$= \frac{\quad}{10}$

c) $2\frac{3}{8} = \frac{\quad}{8}$

$= \frac{\quad}{8}$

2. Write each improper fraction as a mixed number.

a) $\frac{8}{5} = \frac{5}{5} + \frac{3}{5}$

$= 1\frac{3}{5}$

b) $\frac{16}{3} = \frac{\quad}{3} + \frac{\quad}{3}$

$= \frac{\quad}{3}$

c) $\frac{17}{5} = \frac{\quad}{5}$

$= \frac{\quad}{5}$

d) $\frac{29}{8} = \frac{\quad}{8}$

$= \frac{\quad}{8}$

e) $\frac{33}{9} = \frac{\quad}{9}$

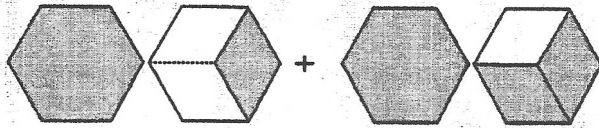
$= \frac{\quad}{9}$

f) $\frac{41}{7} = \frac{\quad}{7}$

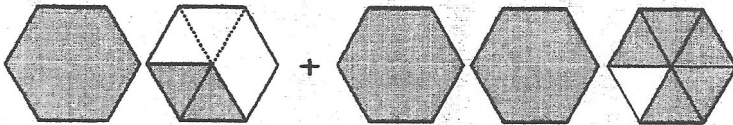
$= \frac{\quad}{7}$

3. Write the addition equation represented by each diagram.

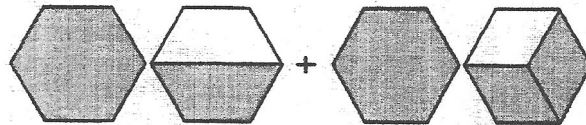
a) _____



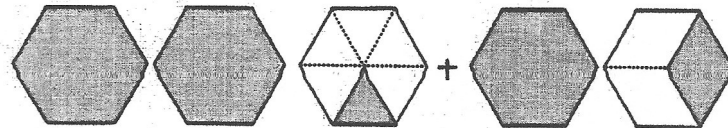
b) _____



c) _____



d) _____



4. Add.

a) $2\frac{1}{2} + 3\frac{2}{5} =$ _____

b) $7\frac{1}{9} + 3\frac{1}{6} =$ _____

H I N T

- To add 2 mixed numbers:
- Add the whole numbers.
 - Add the fractions.
 - Write the sum as a mixed number.



5. Linda is making new curtains for her kitchen and living room windows.

She needs $1\frac{1}{3}$ m of fabric for the kitchen and $2\frac{3}{5}$ m for the living room.

How many metres of fabric does Linda need altogether?

6. Last week, Jenna worked $5\frac{2}{3}$ h baby-sitting and $3\frac{1}{2}$ h giving swimming lessons.
How many hours did she work in all?
