



Additional Practice 7-8

Add Mixed Numbers



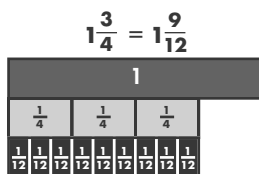
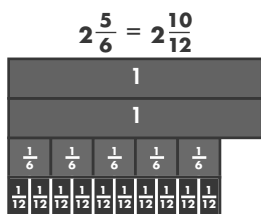
Before you add, you need to write equivalent fractions.

Another Look!

Randy did homework for $2\frac{5}{6}$ hours. Then he played soccer for $1\frac{3}{4}$ hours. How many hours did he spend on the two activities?

Step 1

Write equivalent fractions with a common denominator. You can use fraction strips to show the equivalent fractions.



Step 2

Add the fraction part of the mixed numbers first. Then add the whole numbers.

$$\frac{9}{12} + \frac{10}{12} = \frac{19}{12}$$

$$1 + 2 = 3$$

$$\frac{19}{12} + 3 = 3\frac{19}{12}$$

Step 3

Regroup $\frac{19}{12}$ as $1\frac{7}{12}$. Find the sum.

$$3\frac{19}{12} = 3 + 1\frac{7}{12} = 4\frac{7}{12}$$

Randy spent $4\frac{7}{12}$ hours on the two activities.

In 1–12, find each sum.

1. $2\frac{5}{6} = 2\frac{10}{12}$
 $+ 3\frac{1}{4} = 3\frac{3}{12}$

 $6\frac{1}{12}$

2. $5\frac{2}{5} = 5\frac{4}{10}$
 $+ 4\frac{1}{2} = 4\frac{5}{10}$

 $9\frac{9}{10}$

3. $1\frac{3}{8}$
 $+ 6\frac{3}{4}$

 $8\frac{1}{8}$

4. $10\frac{1}{3} + \frac{7}{9}$ $11\frac{1}{9}$

5. $3\frac{1}{4} + 6\frac{2}{3}$ $9\frac{11}{12}$

6. $2\frac{1}{2} + 2\frac{1}{6}$ $4\frac{2}{3}$

7. $3\frac{7}{8} + 5\frac{2}{3}$ $9\frac{13}{24}$

8. $4\frac{5}{6} + 9\frac{5}{9}$ $14\frac{7}{18}$

9. $15\frac{1}{3} + 1\frac{5}{12}$ $16\frac{3}{4}$

10. $12\frac{3}{4} + 6\frac{3}{8}$ $19\frac{1}{8}$

11. $14\frac{7}{10} + 3\frac{3}{5}$ $18\frac{3}{10}$

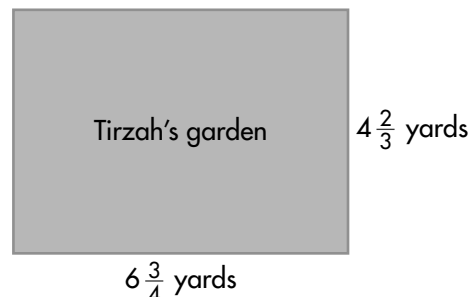
12. $8\frac{5}{8} + 7\frac{7}{16}$ $16\frac{1}{16}$

Remember to use an estimate to check that your answer is reasonable.



13. Tirzah wants to put a fence around her garden. She has 22 yards of fence material. Does she have enough to go all the way around the garden? Explain why or why not.

No. She needs $22\frac{5}{6}$ yards to go all the way around the garden.



14. **Higher Order Thinking** Lake Trail is $4\frac{3}{5}$ miles long. Outlook Trail is $5\frac{5}{6}$ miles long. Pinewoods Trail is $1\frac{3}{10}$ miles longer than Lake Trail. Which trail is longer, Pinewoods Trail or Outlook Trail? Explain.

Pinewoods Trail; $4\frac{3}{5} + 1\frac{3}{10} = 5\frac{9}{10}$; $5\frac{9}{10} > 5\frac{5}{6}$

15. **Reasoning** Can the sum of two mixed numbers be equal to 2? Explain.

No; Sample answer: The sum cannot equal 2 because every mixed number is greater than 1.

Use the data table for 16–18.

16. Joan reads that the mass of an average elephant's brain is $3\frac{4}{10}$ kilograms greater than an average man's brain. How many kilograms is an average elephant's brain?

$4\frac{4}{5}$ kg

| Vital Organ Measures | | |
|-----------------------|--------------------|-------------------|
| Average woman's brain | $1\frac{3}{10}$ kg | $2\frac{4}{5}$ lb |
| Average man's brain | $1\frac{2}{5}$ kg | 3 lb |
| Average human heart | $\frac{3}{10}$ kg | $\frac{7}{10}$ lb |

17. What is the total mass of an average man's brain and heart in kilograms (kg)?

$1\frac{7}{10}$ kg

18. What is the total weight of an average woman's brain and heart in pounds (lb)?

$3\frac{1}{2}$ lb

Assessment Practice

19. What is the missing number in the following equation?

$$1\frac{4}{9} + \frac{1}{\boxed{3}} = 1\frac{7}{9}$$

20. Trish drove $18\frac{1}{8}$ miles yesterday. She drove $13\frac{2}{3}$ miles today. Write an addition sentence to show how many miles Trish drove in all.

$$18\frac{1}{8} + 13\frac{2}{3} = 31\frac{19}{24} \text{ miles}$$