Exercise 9 Subtracting Like Fractions and Mixed Numbers

Subtract like fractions by subtracting the numerators, using the same denominator.

Subtract. $\frac{4}{9} - \frac{1}{9}$

Subtract the numerators. $\frac{4-1}{9}$

Write the common denominator. $= \frac{3}{9}$

Reduce to lowest terms. $= \frac{1}{3}$

Subtract mixed numbers the same way. Regroup to borrow, if needed.

Subtract. $6\frac{2}{5} - 4\frac{4}{5}$

Regroup $6\frac{2}{5}$ to borrow. $6\frac{2}{5} = 5\frac{7}{5}$

Subtract the whole numbers. $5\frac{7}{5}$

Subtract the fractions. $-\ 4\frac{4}{5}$

$1\frac{3}{5}$

Subtract the fractions. Reduce your answer to lowest terms.

1. $\frac{3}{4} - \frac{1}{4} =$

2. $\frac{6}{8} - \frac{4}{8} =$

3. $\frac{8}{10} - \frac{6}{10} =$

4. $\frac{8}{12} - \frac{4}{12} =$

5. $\frac{8}{15} - \frac{1}{15} =$

6. $\frac{4}{5} - \frac{2}{5} =$

7. $\frac{2}{3} - \frac{1}{3} =$

8. $\frac{11}{24} - \frac{8}{24} =$

Subtract the mixed numbers. Reduce your answer to lowest terms.

9. $12\frac{3}{4} - 3\frac{1}{4} =$

10. $7\frac{7}{8} - 5\frac{4}{8} =$

11. $8\frac{3}{9} - 7\frac{1}{9} =$

12. $9\frac{3}{12} - 6\frac{8}{12} =$

13. $18\frac{7}{10} - 15\frac{7}{10}$

14. $6\frac{2}{6} - 1\frac{5}{6}$

15. $90\frac{1}{2} - 45\frac{1}{2}$

16. $112\frac{3}{8} - 23\frac{4}{8}$

17. $47\frac{3}{9} - 44\frac{6}{9}$

Solve.

18. Cynthia and Mark are working together on a community clean-up project. They have spent the last several Saturdays cleaning up the park. Cynthia worked for $4\frac{2}{3}$ hours on Saturday. Mark worked for $2\frac{1}{3}$ hours.

How many more hours did Cynthia work? _____

Directions: Choose the one best answer to each item. Circle the number of the correct answer.

19. Sam bought $5\frac{3}{4}$ yards of carpet to put in the hallway. He only used $4\frac{1}{4}$ yards. How much carpet does Sam have left over?

(1) $1\frac{1}{2}$ yards
(2) 10 yards
(3) $9\frac{1}{2}$ yards
(4) 2 yards
(5) 1 yard

20. The photographer filled $2\frac{2}{3}$ albums with color proofs. She filled 1 album with black-and-white proofs. How much more space do the color proofs take up?

(1) $3\frac{2}{3}$
(2) $1\frac{1}{3}$
(3) 1
(4) 4
(5) $1\frac{2}{3}$

21. John and Danielle are working toward fitness goals. John can walk about $3\frac{2}{4}$ miles each day. Danielle can walk $4\frac{3}{4}$ miles each day. Who can walk the greater distance, and by how much more?

(1) Danielle; $7\frac{1}{4}$ miles
(2) John; $1\frac{1}{4}$ miles
(3) Danielle; $1\frac{1}{4}$ miles
(4) Danielle; 8 miles
(5) John; 2 miles

22. Danny saves $\frac{2}{16}$ of his weekly earnings. How much of his earnings does he spend?

(1) $\frac{5}{16}$
(2) $\frac{7}{8}$
(3) $\frac{1}{8}$
(4) $\frac{1}{2}$
(5) $\frac{1}{16}$

23. Greg spends about $\frac{8}{12}$ of the year traveling on business. Hanna spends about $\frac{2}{12}$ of the year away on business. About how much less time does Hanna spend traveling on business than Greg?

(1) $\frac{1}{2}$ of a year
(2) $\frac{10}{12}$ of a year
(3) $\frac{6}{24}$ of a year
(4) $\frac{5}{6}$ of a year
(5) $\frac{1}{3}$ of a year

24. Two workers were fitted for uniforms. Jack's inseam measured $36\frac{1}{2}$ inches, and Ed's measured $32\frac{1}{2}$ inches. How much longer will Jack's pants be than Ed's?

(1) 2 inches
(2) 3 inches
(3) 4 inches
(4) 6 inches
(5) 1 inch

25. Sam and Marlene are meeting at a local cafe. Sam must travel $10\frac{1}{10}$ miles to get there. Marlene must travel $8\frac{2}{10}$ miles. How much further must Sam travel?

(1) $18\frac{1}{10}$ miles
(2) $18\frac{3}{10}$ miles
(3) $2\frac{9}{10}$ miles
(4) $2\frac{1}{10}$ miles
(5) $1\frac{9}{10}$ miles

26. Hanna also wants to meet Sam at the local cafe in item 25. She must travel $12\frac{7}{10}$ miles. How many miles further than Marlene must Hanna travel to meet Sam?

(1) $4\frac{1}{10}$ miles
(2) $4\frac{7}{10}$ miles
(3) $3\frac{2}{5}$ miles
(4) $4\frac{1}{2}$ miles
(5) $4\frac{2}{5}$ miles