

Math 8 Honors 2025
HW Ch2B Composite Fractions

Name _____

Date _____

1. Express as a mixed fraction: $\frac{(\frac{2}{3} + \frac{-4}{5})}{-\frac{3}{4}}$

2. Express as a common fraction: $\frac{\frac{3}{5} - \frac{1}{4}}{\frac{5}{8}}$

3. Express as a mixed fraction: $\frac{2 \cdot 1\frac{1}{4}}{2 - \frac{4 - \frac{7}{8}}{4 - \frac{1}{4}}}$

4. Express in simplest form: $\left(\frac{\frac{2}{3} \div \frac{3}{4}}{1\frac{5}{6}}\right) \left(\frac{2\frac{1}{5} \times 3}{3\frac{1}{5}}\right)$

5. Write as a mixed number: $\frac{\frac{2}{3} - \frac{1}{4}}{\frac{3}{5} - \frac{1}{2}}$

6. Express in simplest form: $\frac{\frac{4}{9} + \frac{1}{6}}{\frac{2}{3}(\frac{5}{6} - \frac{3}{4})}$

7. Simplify and write your answer as a common fraction:

$$\frac{\frac{\frac{3}{4} - \frac{2}{3}}{\frac{1}{2} - \frac{1}{4}}}{\frac{1}{2} - \frac{1}{4}}$$

8. Simplify the expression: $\frac{\frac{\frac{3}{8}}{1 + \frac{1}{\frac{2}{3} \div \frac{5}{6}}}}$

Express your answer as a common fraction.

9. Express as a common fraction: $\frac{\frac{1}{2} + \frac{1}{5}}{\frac{1}{3} + \frac{1}{4}}$

10. Simplify: $\frac{\frac{1}{2} + \frac{1}{3} + \frac{1}{4}}{\frac{1}{2} \cdot \frac{1}{3} \cdot \frac{1}{4}}$

11. Express in simplest form: $\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{2} - \frac{1}{3}}$

12. Express as a common fraction: $\frac{1}{\frac{1}{2} + \frac{1}{3} + \frac{1}{4}}$

13. Express as a common fraction: $\frac{1 - \frac{1}{4}}{1 + \frac{1}{4}}$

14. Simplify: $\frac{1}{1 - \frac{1}{1 - \frac{1}{2}}}$

15. Express the following as a simple, reduced, rational number. $\frac{1}{2 - \frac{1}{1 + \frac{2}{1 + \frac{1}{2}}}}$

16. Express as a fraction in simplest form:

$$6 - \frac{5}{4 - \frac{1}{3 - \frac{1}{2 - 1}}}$$

17. Express as a common fraction: $1 - \frac{1}{1 - \frac{1}{1 - \frac{3}{8}}}$

18. Express as a common fraction: $3 + \frac{3}{3 + \frac{1}{3}}$

19. Calculate: $\frac{1 + \frac{1}{2}}{\frac{1}{2} + \frac{1}{3}}$. Express your answer as a common fraction.

20. Calculate: $\frac{\frac{3}{4} + (\frac{5}{6} \div \frac{2}{3})}{\frac{3}{4} - (\frac{5}{6} \div \frac{2}{3})}$.

21. Simplify the expression: $\frac{6}{5 + \frac{4}{3 + \frac{1}{2}}}$

22. Express as a mixed number: $1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{3}}}$

23. Find the value of the complex fraction given.
Express your answer as a common fraction.

$$\frac{\frac{1}{4 - \frac{1}{1 - \frac{1}{4}}}}{1 - \frac{1}{4}}$$

24. Write the following as a common fraction.

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

25. Compute the value of the following expression.
Express your answer as a common fraction.

$$\frac{1}{1 - \frac{1}{1 + 1}} + \frac{1}{1 + \frac{1}{1 + 1}}$$

26. Simplify and express your answer as a common fraction.

$$\frac{1}{1 + \frac{1}{\frac{1}{1 + 1} + \frac{1}{1 + 1}}}$$

27. Simplify and give your answer as a mixed number:

$$\frac{\frac{1}{1 + 1}}{\frac{2 + 1}{\frac{3 + 1}{\frac{4 + 1}{5 + 1}}}}$$

28. Simplify and express your answer as a common fraction.

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

29. Write as a common fraction:

$$\frac{1}{1 + \frac{1}{1 + \frac{1}{1 + 1}}}$$

30. Simplify and express your answer as a common fraction.

$$\frac{1}{1 + \frac{1}{1 + 1}} + \frac{2}{2 + \frac{2}{2 + 2}}$$

Answer List

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|--------------------|--------------------|---------------------|
| 1. $\frac{8}{45}$ | 2. $\frac{14}{25}$ | 3. $2\frac{1}{7}$ |
| 4. 1 | 5. $4\frac{1}{6}$ | 6. 11 |
| 7. $\frac{1}{3}$ | 8. $\frac{1}{6}$ | 9. $\frac{6}{5}$ |
| 10. 26 | 11. 5 | 12. $\frac{12}{13}$ |
| 13. $\frac{3}{5}$ | 14. -1 | 15. $\frac{7}{11}$ |
| 16. $\frac{32}{7}$ | 17. $\frac{8}{3}$ | 18. $\frac{39}{10}$ |
| 19. $\frac{9}{5}$ | 20. -4 | 21. $\frac{42}{43}$ |
| 22. $1\frac{4}{7}$ | 23. $\frac{3}{8}$ | 24. $\frac{4}{9}$ |
| 25. $\frac{8}{3}$ | 26. $\frac{1}{2}$ | 27. $1\frac{7}{8}$ |
| 28. $\frac{5}{9}$ | 29. $\frac{3}{5}$ | 30. $\frac{46}{35}$ |

Catalog List

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| 1. MCC AA 11 | 2. MCC AA 64 | 3. MCC AA 18 |
| 4. MCC AA 32 | 5. MCC AA 41 | 6. MCC AA 57 |
| 7. MCC AA 36 | 8. MCC AA 45 | 9. MCC AA 81 |
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| 19. MCC AA 121 | 20. MCC AA 125 | 21. MCC AA 17 |
| 22. MCC AA 49 | 23. MCC AA 76 | 24. MCC AA 111 |
| 25. MCC AA 115 | 26. MCC AA 116 | 27. MCC AA 73 |
| 28. MCC AA 117 | 29. MCC AA 107 | 30. MCC AA 120 |