

Adding and Subtracting Fractions

Name: _____

1. $\frac{1}{9} + \frac{1}{27} =$

$$\frac{1}{9} \times \frac{3}{3} + \frac{1}{27}$$

$$\frac{3}{27} + \frac{1}{27} = \boxed{\frac{4}{27}}$$

2. $\frac{5}{6} + \frac{1}{18}$

$$\frac{5}{6} \times \frac{3}{3} + \frac{1}{18}$$

$$\frac{15}{18} + \frac{1}{18} = \frac{16}{18} \div 2 = \boxed{\frac{8}{9}}$$

3. $-\frac{2}{11} + \frac{3}{11}$

$$\frac{1}{11}$$

4. $\frac{2}{5} - \frac{2}{10}$

$$\frac{2}{5} \times \frac{2}{2} - \frac{2}{10}$$

$$\frac{4}{10} - \frac{2}{10} = \frac{2}{10} \div 2 = \boxed{\frac{1}{5}}$$

5. $\frac{3}{8} + \frac{3}{4}$

$$\frac{3}{8} + \frac{3}{4} \cdot \frac{2}{2}$$

$$\frac{3}{8} + \frac{6}{8} = \boxed{\frac{9}{8}}$$

6. $\frac{13}{15} + \frac{2}{3}$

$$\frac{13}{15} + \frac{2}{3} \cdot \frac{5}{5}$$

$$\frac{13}{15} + \frac{10}{15} = \boxed{\frac{23}{15}}$$

7. $\frac{8}{9} + \frac{7}{12}$

$$\frac{8 \times 4}{9 \times 4} = \frac{32}{36} + \frac{7 \times 3}{12 \times 3} = \frac{21}{36}$$

$$\frac{32}{36} + \frac{21}{36} = \boxed{\frac{53}{36}}$$

8. $1\frac{2}{7} - \frac{3}{4}$

$$\frac{9}{7} - \frac{3}{4}$$

$$\frac{9 \times 4}{7 \times 4} - \frac{3 \times 7}{4 \times 7}$$

$$\frac{36}{28} - \frac{21}{28} = \frac{15}{28}$$

9. $1\frac{3}{8} - \frac{3}{4}$

$$\frac{11}{8} - \frac{3}{4} \times \frac{2}{2}$$

$$\frac{11}{8} - \frac{6}{8} = \boxed{\frac{5}{8}}$$

10. $1\frac{1}{10} - \frac{2}{5}$

$$\frac{11}{10} - \frac{2}{5} \cdot \frac{2}{2}$$

$$\frac{11}{10} - \frac{4}{10} = \boxed{\frac{7}{10}}$$

11. $5\frac{2}{9} - 2\frac{17}{18}$

$$\frac{47}{9} - \frac{53}{18}$$

$$\frac{47 \times 2}{9 \times 2}$$

$$\frac{94}{18} - \frac{53}{18} = \boxed{\frac{41}{18}}$$

12. $5\frac{3}{4} - \frac{11}{12}$

$$\frac{23}{4} - \frac{11}{12}$$

$$\frac{23 \times 3}{4 \times 3} - \frac{11}{12}$$

$$\frac{69}{12} - \frac{11}{12} = \frac{58}{12} \div 2 = \frac{29}{6}$$

Adding and Subtracting Fractions

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13. $\frac{4}{15} + \frac{1}{15} =$

$$\frac{5}{15} + \frac{1}{3} =$$

17. $\frac{3}{10} + \frac{7}{10} = \frac{10}{10} = 1$

21. $\frac{5}{11} + \frac{6}{11} = \frac{11}{11} = 1$

14. $\frac{3}{5} + \frac{2}{5} =$

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

18. $1\frac{14}{25} + 5\frac{6}{25} =$

$$\frac{39}{25} + \frac{131}{25} = \frac{170}{25} \div 5 = \frac{34}{5}$$

22. $7\frac{3}{15} + \frac{12}{15} =$

$$\frac{108}{15} + \frac{12}{15} = \frac{120}{15} \div 15 = \frac{8}{1} = 8$$

15. $3\frac{1}{6} + \frac{3}{6} =$

$$\frac{19}{6} + \frac{3}{6} = \frac{22}{6} \div 2 = \frac{11}{3}$$

19. $\frac{13}{9} + \frac{17}{9} = \frac{30}{9} \div 3 = \frac{10}{3}$

16. $4\frac{3}{7} + 2\frac{1}{7} =$

$$\frac{31}{7} + \frac{15}{7} = \frac{46}{7}$$

20. $\frac{3}{16} + 3\frac{5}{16} =$

$$\frac{3}{16} + \frac{53}{16} = \frac{56}{16} \div 8 = \frac{7}{2}$$

23. For a class experiment, Peter's class weighed a log before and after subjecting it to termites. Before subjecting it to termites, the log weighed $\frac{2}{3}$ of a pound. After the termites, the log weighed $\frac{1}{12}$ of a pound. How much weight did the termites take from the log?

ALWAYS PUT UNITS

$$\frac{2}{3} - \frac{1}{12}$$

$$\frac{2 \times 4}{3 \times 4} - \frac{1}{12}$$

$$\frac{8}{12} - \frac{1}{12} = \frac{7}{12} \text{ lbs}$$