

Name _____

Class Period _____

Fractions Quest Review

Show all of your work. Please surround your answers with a circle or rectangle.

1. Reduce $\frac{63}{108} = \frac{\cancel{3} \cdot \cancel{3} \cdot 7}{2 \cdot 2 \cdot \cancel{3} \cdot 3 \cdot 3} = \frac{7}{12}$

$$\begin{array}{r} 3 \overline{) 39} \\ \underline{39} \\ 0 \end{array}$$

$$\begin{array}{r} 3 \overline{) 27} \\ \underline{27} \\ 0 \end{array}$$

$$\begin{array}{r} 3 \overline{) 63} \\ \underline{63} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 54} \\ \underline{54} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 108} \\ \underline{108} \\ 0 \end{array}$$

2. Convert to a mixed number: $\frac{37}{11}$

$$11 \overline{) 37} \\ \underline{33} \\ 4$$

$$3 \frac{4}{11}$$

3. Convert to an improper fraction: $4 \frac{2}{7}$

$$4 \frac{2}{7} = \frac{30}{7}$$

Perform the indicated operation.

4. $\frac{3}{5} + \frac{2}{7} = \frac{3 \cdot 7}{5 \cdot 7} + \frac{2 \cdot 5}{7 \cdot 5} = \frac{21}{35} + \frac{10}{35} = \frac{31}{35}$

5. $\frac{3}{10} + \frac{5}{6} = \frac{3 \cdot 3}{10 \cdot 3} + \frac{5 \cdot 5}{6 \cdot 5} = \frac{9}{30} + \frac{25}{30} = \frac{34}{30} = \frac{2 \cdot 17}{2 \cdot 15} = \frac{17}{15}$ or $1 \frac{2}{15}$

6. $3 \frac{4}{9} + 2 \frac{1}{3} = 3 \frac{4}{9} + 2 \frac{3}{9} = 5 \frac{7}{9}$

7. $7 \frac{3}{8} + 4 \frac{6}{7} = 7 \frac{3 \cdot 7}{8 \cdot 7} + 4 \frac{6 \cdot 8}{7 \cdot 8} = 7 \frac{21}{56} + 4 \frac{48}{56} = 11 \frac{69}{56} = 11 + 1 \frac{13}{56} = 12 \frac{13}{56}$

8. $\frac{4}{9} - \frac{2}{5} = \frac{4 \cdot 5}{9 \cdot 5} - \frac{2 \cdot 9}{5 \cdot 9} = \frac{20}{45} - \frac{18}{45} = \frac{2}{45}$

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

10. $7 \frac{4}{5} - 4 \frac{2}{3} = 7 \frac{12}{15} - 4 \frac{10}{15} = 3 \frac{2}{15}$

11. $6 \frac{3}{7} - 4 \frac{1}{2} = 6 \frac{3 \cdot 2}{7 \cdot 2} - 4 \frac{1 \cdot 7}{2 \cdot 7} = 6 \frac{6}{14} - 4 \frac{7}{14} = 1 \frac{13}{14}$

12. $\frac{9}{10} \times \frac{2}{3} = \frac{3 \cdot 2}{2 \cdot 5} \times \frac{2}{3} = \frac{3}{5}$

13. $\frac{24}{49} \times \frac{21}{40} = \frac{3 \cdot 8}{7 \cdot 7} \times \frac{3 \cdot 7}{5 \cdot 8} = \frac{9}{35}$

14. $2 \frac{1}{3} \times 4 \frac{5}{7} = \frac{7}{3} \times \frac{33}{7} = 11$

15. $\frac{3}{5} \div \frac{2}{3} = \frac{3}{5} \cdot \frac{3}{2} = \frac{9}{10}$

16. $4 \frac{4}{5} \div 3 \frac{1}{2} = \frac{24}{5} \div \frac{7}{2} = \frac{24}{5} \cdot \frac{2}{7} = \frac{48}{35} = 1 \frac{13}{35}$

17. Which is larger, $\frac{17}{25}$ or $\frac{19}{40}$? $\frac{17 \cdot 8}{25 \cdot 8} = \frac{136}{200}$ and $\frac{19 \cdot 5}{40 \cdot 5} = \frac{95}{200}$. Since $\frac{136}{200} > \frac{95}{200}$, $\frac{17}{25}$ is larger.

18. Which is larger, $\frac{5}{11}$ or $\frac{4}{9}$? $\frac{5 \cdot 9}{11 \cdot 9} = \frac{45}{99}$ and $\frac{4 \cdot 11}{9 \cdot 11} = \frac{44}{99}$. Since $\frac{45}{99} > \frac{44}{99}$, $\frac{5}{11}$ is larger.

19. What do you do to reduce? factor and cancel

20. In terms of pies, explain why $\frac{19}{3}$ is equivalent to $6 \frac{1}{3}$.

