Name _____ Date _____ Class _____

Practice A
4-7 *Multiplying Fractions and Mixed Numbers*

Solve. Write each answer in simplest form.

1. Louis spent 12 hours last week practicing guitar. If $\frac{1}{4}$ of the time was spent practicing chords, how much time did he spend practicing chords? _____

2. A banana bread recipe calls for $\frac{1}{4}$ tsp salt. Diane is making 5 loaves of banana bread. How much salt does she need? _____

Multiply. Write each answer in simplest form.

3. $4 \cdot \frac{1}{2}$

4. $8 \cdot \frac{1}{4}$

5. $10 \cdot \frac{1}{5}$

_____ _____ _____

6. $\frac{1}{2} \cdot \frac{1}{4}$

7. $\frac{1}{4} \cdot \frac{2}{3}$

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

_____ _____ _____

9. $16 \cdot \frac{3}{4}$

10. $24 \cdot \frac{5}{6}$

11. $32 \cdot \frac{3}{8}$

_____ _____ _____

12. $\frac{1}{2} \cdot \frac{1}{5}$

13. $\frac{1}{5} \cdot \frac{3}{4}$

14. $\frac{3}{7} \cdot \frac{1}{3}$

_____ _____ _____

15. $2\frac{1}{4} \cdot \frac{1}{2}$

16. $3\frac{1}{3} \cdot \frac{3}{5}$

17. $5\frac{1}{3} \cdot \frac{1}{4}$

_____ _____ _____

Holt Middle School Math   Course 2

Practice A
Multiplying Fractions and Mixed Numbers

Solve. Write each answer in simplest form.

1. Louis spent 12 hours last week practicing guitar. If $\frac{1}{4}$ of the time was spent practicing chords, how much time did he spend practicing chords? **3 hours**

2. A banana bread recipe calls for $\frac{1}{4}$ tsp salt. Diane is making 5 loaves of banana bread. How much salt does she need? **$1\frac{1}{4}$ tsp**

Multiply. Write each answer in simplest form.

3. $4 \cdot \frac{1}{2}$ **2**

4. $8 \cdot \frac{1}{4}$ **2**

5. $10 \cdot \frac{1}{5}$ **2**

6. $\frac{1}{2} \cdot \frac{1}{4}$ **$\frac{1}{8}$**

7. $\frac{1}{4} \cdot \frac{2}{3}$ **$\frac{1}{6}$**

8. $\frac{3}{4} \cdot \frac{2}{3}$ **$\frac{1}{2}$**

9. $16 \cdot \frac{3}{4}$ **12**

10. $24 \cdot \frac{5}{6}$ **20**

11. $32 \cdot \frac{3}{8}$ **12**

12. $\frac{1}{2} \cdot \frac{1}{5}$ **$\frac{1}{10}$**

13. $\frac{1}{5} \cdot \frac{3}{4}$ **$\frac{3}{20}$**

14. $\frac{3}{7} \cdot \frac{1}{3}$ **$\frac{1}{7}$**

15. $2\frac{1}{4} \cdot \frac{1}{2}$ **$1\frac{1}{8}$**

16. $3\frac{1}{3} \cdot \frac{3}{5}$ **2**

17. $5\frac{1}{3} \cdot \frac{1}{4}$ **$1\frac{1}{3}$**

Practice B
Multiplying Fractions and Mixed Numbers

Multiply. Write each answer in simplest form.

1. $5 \cdot \frac{1}{2}$ **$2\frac{1}{2}$**

2. $9 \cdot \frac{3}{4}$ **$6\frac{3}{4}$**

3. $6 \cdot \frac{2}{5}$ **$2\frac{2}{5}$**

4. $\frac{9}{15} \cdot \frac{5}{7}$ **$\frac{3}{7}$**

5. $\frac{9}{14} \cdot \frac{7}{9}$ **$\frac{1}{2}$**

6. $\frac{7}{12} \cdot \frac{6}{14}$ **$\frac{1}{4}$**

7. $12 \cdot \frac{3}{7}$ **$5\frac{1}{7}$**

8. $15 \cdot \frac{5}{6}$ **$12\frac{1}{2}$**

9. $21 \cdot \frac{3}{8}$ **$7\frac{7}{8}$**

10. $2\frac{1}{3} \cdot \frac{3}{5}$ **$1\frac{2}{5}$**

11. $3\frac{2}{5} \cdot \frac{1}{2}$ **$1\frac{7}{10}$**

12. $4\frac{5}{6} \cdot \frac{2}{5}$ **$1\frac{14}{15}$**

13. $2\frac{2}{5} \cdot \frac{2}{3}$ **$1\frac{3}{5}$**

14. $3\frac{3}{4} \cdot \frac{2}{5}$ **$1\frac{1}{2}$**

15. $8\frac{1}{6} \cdot \frac{3}{7}$ **$3\frac{1}{2}$**

16. $2\frac{1}{3} \cdot 3\frac{3}{8}$ **$7\frac{7}{8}$**

17. $1\frac{3}{5} \cdot 6\frac{2}{3}$ **$10\frac{2}{3}$**

18. $2\frac{2}{5} \cdot 4\frac{5}{6}$ **$11\frac{3}{5}$**

19. Rolf spent 15 hours last week practicing his saxophone. If $\frac{3}{10}$ of the time was spent practicing warm-up routines, how much time did he spend practicing warm-up routines? **$4\frac{1}{2}$ hours**

20. A muffin recipe calls for $\frac{2}{5}$ tablespoon of vanilla extract for 6 muffins. Arthur is making 18 muffins. How much vanilla extract does he need? **$1\frac{1}{5}$ T**

Practice C
Multiplying Fractions and Mixed Numbers

Multiply. Write each answer in simplest form.

1. $12 \cdot \frac{1}{7}$ **$1\frac{5}{7}$**

2. $15 \cdot \frac{1}{4}$ **$3\frac{3}{4}$**

3. $7 \cdot \frac{1}{5}$ **$1\frac{2}{5}$**

4. $\frac{8}{15} \cdot \frac{3}{4}$ **$\frac{2}{5}$**

5. $\frac{6}{15} \cdot \frac{7}{18}$ **$\frac{7}{45}$**

6. $\frac{9}{11} \cdot \frac{22}{27}$ **$\frac{2}{3}$**

7. $\frac{2}{9} \cdot \frac{7}{10}$ **$\frac{7}{45}$**

8. $\frac{2}{15} \cdot \frac{5}{12}$ **$\frac{1}{18}$**

9. $\frac{7}{12} \cdot \frac{3}{7}$ **$\frac{1}{4}$**

10. $2\frac{1}{7} \cdot \frac{1}{5}$ **$\frac{3}{7}$**

11. $3\frac{4}{9} \cdot \frac{1}{2}$ **$1\frac{13}{18}$**

12. $4\frac{1}{8} \cdot \frac{2}{9}$ **$\frac{11}{12}$**

13. $2\frac{2}{11} \cdot \frac{2}{3}$ **$1\frac{5}{11}$**

14. $3\frac{3}{5} \cdot \frac{2}{9}$ **$\frac{4}{5}$**

15. $8\frac{1}{7} \cdot \frac{3}{5}$ **$4\frac{31}{35}$**

Complete each multiplication sentence.

16. $\frac{?}{5} \cdot \frac{3}{10} = \frac{3}{25}$ **2**

17. $\frac{1}{4} \cdot \frac{?}{7} = \frac{5}{14}$ **6**

18. $\frac{2}{3} \cdot \frac{?}{8} = \frac{5}{12}$ **5**

19. $\frac{?}{3} \cdot \frac{3}{8} = \frac{1}{4}$ **2**

20. $\frac{4}{5} \cdot \frac{?}{4} = \frac{3}{5}$ **3**

21. $\frac{3}{4} \cdot \frac{?}{7} = \frac{3}{7}$ **4**

22. A hippopotamus lives about $2\frac{4}{7}$ times as long as a tiger. A tiger lives an average of 16 years. How long does the average hippopotamus live? **$41\frac{1}{7}$ years**

23. A pie crust recipe calls for $\frac{4}{5}$ teaspoon of baking powder. Alice is making 13 pies. How much baking powder does she need? **$10\frac{2}{5}$ teaspoons**

Reteach
Multiplying Fractions and Mixed Numbers

To multiply fractions and mixed numbers:
Step 1: Write any mixed numbers as improper fractions.
Step 2: Multiply the numerators.
Step 3: Multiply the denominators.
Step 4: Write the answer in simplest form.

Remember, positive times negative equals negative.

Multiply: $\frac{4}{9} \cdot \frac{3}{8}$

Divide numerator and denominator by 12, the GCM.

$\frac{4}{9} \cdot \frac{3}{8} = \frac{4 \cdot 3}{9 \cdot 8}$

$= \frac{12}{72}$

$= \frac{1}{6}$

Multiply: $6\frac{1}{4} \cdot \left(-1\frac{4}{5}\right)$

$6\frac{1}{4} \cdot \left(-1\frac{4}{5}\right) = \frac{25}{4} \cdot \left(\frac{-9}{5}\right)$

$= \frac{25 \cdot (-9)}{4 \cdot 5}$

$= \frac{-225}{20}$

$= -11\frac{1}{4}$

Multiply. Write each answer in simplest form.

1. $6 \cdot \frac{1}{9} = \frac{6 \cdot 1}{9} = \frac{6}{9} = \frac{2}{3}$

2. $-\frac{4}{5} \cdot \frac{5}{7} = -\frac{4 \cdot 5}{5 \cdot 7} = -\frac{20}{35} = -\frac{4}{7}$

3. $3\frac{1}{3} \cdot 9 = \frac{10}{3} \cdot 9 = \frac{10 \cdot 9}{3} = \frac{90}{3} = 30$

4. $\frac{3}{10} \cdot 2\frac{1}{2} = \frac{3}{10} \cdot \frac{5}{2} = \frac{3 \cdot 5}{10 \cdot 2} = \frac{15}{20} = \frac{3}{4}$

5. $\frac{2}{7} \cdot \frac{7}{8}$ **$\frac{1}{4}$**

6. $-\frac{5}{9} \cdot \frac{3}{4}$ **$-\frac{5}{12}$**

7. $\frac{9}{10} \cdot \left(-\frac{2}{3}\right)$ **$-\frac{3}{5}$**

8. $2\frac{5}{8} \cdot \frac{2}{3}$ **$1\frac{3}{4}$**

9. $\frac{1}{2} \cdot 4\frac{1}{4}$ **$2\frac{1}{8}$**

10. $-\frac{2}{3} \cdot 1\frac{3}{4}$ **$-1\frac{1}{6}$**

11. $5\frac{1}{5} \cdot \left(-1\frac{1}{3}\right)$ **$-8\frac{2}{3}$**

12. $4\frac{1}{2} \cdot 1\frac{1}{9}$ **5**

13. $-2\frac{3}{4} \cdot \left(-1\frac{1}{3}\right)$ **$3\frac{2}{3}$**