SKILL 10 EXERCISE 1

FRACTIONS BASIC SKILLS

Name Date

Write the Least Common Multiple (LCM) for each pair or group of numbers.

1. 4: 8 12 16 20 24
   5: 10 15 20 25
   LCM 20

2. 3: 6 9 12 15
   9: 18, 27
   LCM 9

3. 5: 10 15 20 25 30
   6: 12 18 24 30
   LCM 30

4. 4: 8 12 16 20
   6: 12 18 24
   LCM 12

5. 4:
   8:
   LCM 8

6. 3:
   6:
   LCM 6

7. 6:
   18:
   LCM 18

8. 4:
   11:
   LCM 44

9. 3: 6 9 12 15 18 21 24 27 30
   6: 12 18 24 30
   5: 10 15 20 25 30
   LCM 30

10. 7:
    6:
    2:
    LCM 42

11. 3:
    5:
    15:
    LCM 15

12. 8:
    2:
    16:
    LCM 16

13. 3:
    9:
    12:
    LCM 36

14. 5:
    6:
    20:
    LCM 60

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FRACTIONS BASIC SKILLS

Name _____ Date _____

Write the Least Common Denominator (LCD) for each pair of fractions.

1. $\frac{1}{3}$ 6 9 12
   $\frac{1}{4}$ 8 12 — LCD 12

2. $\frac{3}{4}$ 8 12 16 20
   $\frac{2}{5}$ 10 15 20 — LCD 20

3. $\frac{2}{3}$ _____
   $\frac{3}{7}$ _____ — LCD 21

4. $\frac{2}{8}$ _____
   $\frac{3}{5}$ _____ — LCD 40

5. $\frac{1}{4}$ _____
   $\frac{2}{16}$ _____ — LCD 16

6. $\frac{4}{5}$ _____
   $\frac{10}{15}$ _____ — LCD 15

7. $\frac{2}{3}$ _____
   $\frac{7}{10}$ _____ — LCD 30

8. $\frac{4}{8}$ _____
   $\frac{2}{10}$ _____ — LCD 40

9. $\frac{3}{6}$ _____
   $\frac{7}{15}$ _____ — LCD 30

10. $\frac{3}{4}$ _____
    $\frac{9}{18}$ _____ — LCD 36

11. $\frac{3}{9}$ _____
    $\frac{2}{6}$ _____ — LCD 18

12. $\frac{1}{2}$ _____
    $\frac{1}{3}$ _____ — LCD 6

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FRACTIONS BASIC SKILLS

Name _____ Date _____

Complete each equality by writing a fraction in higher terms.

1. $\frac{1}{4} = \frac{2}{8}$ (×2)
2. $\frac{1}{8} = \frac{2}{16}$ (×2)
3. $\frac{1}{5} = \frac{5}{25}$ (×5)
4. $\frac{1}{7} = \frac{3}{21}$
5. $\frac{1}{3} = \frac{6}{18}$
6. $\frac{1}{9} = \frac{4}{36}$
7. $\frac{2}{4} = \frac{4}{8}$
8. $\frac{4}{5} = \frac{12}{15}$
9. $\frac{2}{3} = \frac{14}{21}$
10. $\frac{2}{6} = \frac{8}{24}$
11. $\frac{3}{5} = \frac{15}{25}$
12. $\frac{3}{8} = \frac{12}{32}$
13. $\frac{5}{9} = \frac{25}{45}$
14. $\frac{4}{6} = \frac{20}{30}$
15. $\frac{3}{7} = \frac{12}{28}$
16. $\frac{2}{5} = \frac{10}{25}$
17. $\frac{6}{8} = \frac{18}{24}$
18. $\frac{4}{9} = \frac{20}{45}$

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FRACTIONS BASIC SKILLS

Name Date

Complete each equality by writing a fraction in higher terms.

1. $\frac{1}{15} = \frac{2}{30}$ (×2)

2. $\frac{1}{16} = \frac{3}{48}$ (×3)

3. $\frac{1}{11} = \frac{3}{33}$ (×3)

What you do to denominator you must do to numerator

4. $\frac{1}{16} = \frac{4}{64}$

5. $\frac{1}{20} = \frac{4}{80}$ (×4)

6. $\frac{1}{30} = \frac{3}{90}$

7. $\frac{4}{16} = \frac{8}{32}$

8. $\frac{6}{10} = \frac{12}{20}$

9. $\frac{3}{15} = \frac{9}{45}$

10. $\frac{2}{18} = \frac{4}{36}$

11. $\frac{3}{18} = \frac{6}{36}$

12. $\frac{8}{16} = \frac{32}{64}$

13. $\frac{5}{16} = \frac{20}{48}$

14. $\frac{4}{10} = \frac{20}{50}$

15. $\frac{12}{18} = \frac{36}{54}$

16. $\frac{7}{11} = \frac{42}{66}$

17. $\frac{12}{20} = \frac{36}{60}$

18. $\frac{10}{30} = \frac{30}{90}$

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SKILLS 1–3

REVIEW 1

FRACTIONS ADDITION

Name _____ Date _____

Write each answer in lowest terms.

SKILL 1

1. $\frac{1}{5} + \frac{1}{5} = \frac{2}{5}$

2. $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$

3. $\frac{5}{8} + \frac{1}{8} = \frac{6}{8}$

4. $\frac{7}{12} + \frac{5}{12} = \frac{12}{12}$

5. $\frac{11}{16} + \frac{7}{16} = \frac{18}{16}$

These all have same denominator
Can go ahead and just add numerators

SKILL 2

1. $7\frac{1}{8} = \frac{56}{8} + \frac{1}{8}$
   $+2\frac{1}{8}$ $\frac{16}{8} + \frac{1}{8}$

   $\frac{57}{8} + \frac{17}{8} = \frac{74}{8}$

2. $3\frac{2}{9} + 7\frac{4}{9}$

3. $10\frac{1}{8} + 14\frac{4}{8} =$

4. $4\frac{7}{16} + 9\frac{7}{16}$

5. $9\frac{4}{15} + 9\frac{10}{15}$

SKILL 3

1. $8\frac{3}{4} + 1\frac{2}{4}$

2. $8\frac{7}{8} + 7\frac{7}{8}$

3. $14\frac{7}{9} + 10\frac{8}{9}$

4. $7\frac{8}{10} + 4\frac{8}{10}$

5. $6\frac{1}{12} + 24\frac{17}{12}$

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FRACTIONS ADDITION

Name Date

Write each answer in lowest terms.

SKILL 4

LCD = 15

1. $\frac{1}{3} = \frac{5}{15}$
   $+\frac{1}{5} = \frac{3}{15}$
   $\frac{5}{15} + \frac{3}{15} = \boxed{\frac{8}{15}}$

2. $\frac{1}{3} = \frac{3}{9}$
   $+\frac{2}{9} = \frac{2}{9}$
   $\frac{3}{9} + \frac{2}{9} = \boxed{\frac{5}{9}}$

3. $\frac{2}{5} = \frac{6}{15}$
   $+\frac{1}{3} = \frac{5}{15}$
   $\boxed{\frac{11}{15}}$

4. $\frac{4}{9} = \frac{16}{36}$
   $+\frac{3}{4} = \frac{27}{36}$
   $\boxed{\frac{45}{36}}$

5. $\frac{4}{6} = \frac{20}{30}$
   $+\frac{4}{5} = \frac{24}{30}$
   $\boxed{\frac{44}{30}}$

6. $\frac{7}{9} = \frac{35}{45}$
   $+\frac{4}{5} = \frac{36}{45}$
   $\boxed{\frac{71}{45}}$

7. $\frac{6}{8} = \frac{12}{16}$
   $+\frac{9}{16} = \frac{9}{16}$
   $\frac{12}{16} + \frac{9}{16} = \boxed{\frac{21}{16}}$

8. $\frac{9}{10} = \frac{9}{10}$
   $+\frac{4}{5} = \frac{8}{10}$
   $\boxed{\frac{17}{10}}$

9. $\frac{14}{15} = \frac{28}{30}$
   $+\frac{6}{10} = \frac{18}{30}$
   $\boxed{\frac{46}{30}}$

10. $\frac{1}{6} = \frac{2}{12}$
    $+\frac{1}{4} = \frac{3}{12}$
    $\boxed{\frac{5}{12}}$

SKILL 5

1. $6\frac{1}{5} = \frac{30}{5} + \frac{1}{5}$
   $+ 4\frac{1}{6} = \frac{24}{6} + \frac{1}{6}$
   $\frac{31}{5} + \frac{25}{6}$ LCD = 30
   $\frac{186}{30} + \frac{125}{30} = \boxed{\frac{311}{30}}$

2. $3\frac{3}{8}$
   $+5\frac{1}{5}$

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

4. $4\frac{4}{9}$
   $+19\frac{3}{4}$

5. $12\frac{2}{3}$
   $+ 7\frac{5}{6}$

6. $18\frac{5}{6}$
   $+34\frac{6}{8}$

7. $5\frac{9}{16}$
   $+26\frac{3}{4}$

8. $26\frac{11}{15}$
   $+ 8\frac{2}{3}$

9. $20\frac{10}{11}$
   $+16\frac{9}{22}$

10. $13\frac{5}{6}$
    $+12\frac{1}{4}$

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FRACTIONS SUBTRACTION

Name Date

Write each answer in lowest terms.

SKILL 5

Must convert to common denominator

1. $\frac{4}{8} = \frac{4}{8}$
   $-\frac{1}{2} = \frac{4}{8}$
   $\frac{4}{8} - \frac{4}{8} = \frac{4-4}{8}$
   $= \boxed{0}$

2. $\frac{1}{4} = \frac{5}{20}$
   $-\frac{1}{5} = \frac{4}{20}$
   $\boxed{\frac{1}{20}}$

3. $\frac{1}{6} = \frac{4}{24}$
   $-\frac{1}{8} = \frac{3}{24}$
   $\boxed{\frac{1}{24}}$

4. $\frac{5}{8} = \frac{25}{40}$
   $-\frac{2}{5} = \frac{16}{40}$
   $\boxed{\frac{9}{40}}$

5. $\frac{7}{9} = \frac{7}{9}$
   $-\frac{2}{3} = \frac{6}{9}$
   $\boxed{\frac{1}{9}}$

6. $\frac{2}{3} = \frac{14}{21}$
   $-\frac{3}{7} = \frac{9}{21}$
   $\boxed{\frac{5}{21}}$

7. $\frac{9}{10} = \frac{9}{10}$
   $-\frac{1}{2} = \frac{5}{10}$
   $\boxed{\frac{4}{10}}$

8. $\frac{5}{6} = \frac{25}{30}$
   $-\frac{7}{15} = \frac{14}{30}$
   $\boxed{\frac{9}{30}}$

9. $\frac{17}{20}$ $\frac{47}{60}$
   $-\frac{7}{15} = \frac{28}{60}$
   $\boxed{\frac{19}{60}}$

10. $\frac{5}{7} = \frac{15}{21}$
    $-\frac{1}{3} = \frac{7}{21}$
    $\boxed{\frac{8}{21}}$

SKILL 6

1. $6\frac{1}{3}$
   $-2\frac{2}{9}$

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

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

4. $12\frac{3}{8}$
   $-1\frac{1}{2}$

5. $18\frac{2}{5}$
   $-12\frac{3}{4}$

6. $24\frac{7}{8}$
   $-16\frac{4}{5}$

7. $19\frac{3}{10}$
   $-3\frac{4}{5}$

8. $16\frac{1}{3}$
   $-6\frac{7}{18}$

9. $24\frac{1}{15}$
   $-19\frac{5}{6}$

10. $26\frac{1}{4}$
    $-10\frac{1}{2}$

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FRACTIONS MULTIPLICATION

Name Date

Write each answer in lowest terms.

1. $\frac{7}{10} \times \frac{3}{2} = \frac{21}{20}$

2. $\frac{4}{3} \times \frac{4}{11} = \frac{16}{33}$

3. $\frac{3}{11} \times \frac{8}{3} = \frac{24}{33}$

4. $\frac{7}{10} \times \frac{7}{3} = \frac{49}{30}$

5. $\frac{7}{5} \times \frac{9}{11} = \frac{63}{55}$

6. $\frac{3}{2} \times \frac{5}{11} = \frac{15}{22}$

7. $\frac{3}{10} \times \frac{8}{5} = \frac{24}{50}$

8. $\frac{3}{20} \times \frac{5}{3} = \frac{15}{60}$

9. $\frac{8}{19} \times \frac{7}{4} = \frac{56}{76}$

10. $\frac{5}{2} \times \frac{7}{12} = \frac{35}{24}$

11. $\frac{4}{3} \times \frac{10}{11} = \frac{40}{33}$

12. $\frac{5}{13} \times \frac{7}{5} = \frac{35}{65}$

13. $\frac{12}{16} \times \frac{7}{3} = \frac{84}{48}$

14. $\frac{5}{4} \times \frac{8}{15} = \frac{40}{60}$

15. $\frac{7}{5} \times \frac{5}{16} = \frac{35}{80}$

16. $\frac{6}{12} \times \frac{6}{5} = \frac{36}{60}$

17. $\frac{5}{4} \times \frac{8}{11} = \frac{40}{44}$

18. $\frac{2}{13} \times \frac{15}{2} = \frac{30}{26}$

19. $\frac{9}{15} \times \frac{6}{5} = \frac{54}{75}$

20. $\frac{8}{5} \times \frac{5}{17} = \frac{40}{85}$

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FRACTIONS DIVISION

Name Date

Write each answer in lowest terms.

Keep
Flip
Change

1. $\frac{2}{3} \div \frac{4}{7} = \frac{2}{3} \times \frac{7}{4} = \frac{14}{12}$

2. $\frac{2}{5} \div \frac{3}{8} = \frac{2}{5} \times \frac{8}{3} = \frac{16}{15}$

3. $\frac{2}{4} \div \frac{3}{5} = \frac{2}{4} \times \frac{5}{3} = \frac{10}{12}$

4. $\frac{3}{8} \div \frac{2}{3} = \frac{3}{8} \times \frac{3}{2} = \frac{9}{16}$

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

6. $\frac{3}{4} \div \frac{3}{8} = \frac{3}{4} \times \frac{8}{3} = \frac{24}{12}$

7. $\frac{3}{8} \div \frac{2}{5} = \frac{3}{8} \times \frac{5}{2} = \frac{15}{16}$

8. $\frac{4}{6} \div \frac{2}{5} = \frac{4}{6} \times \frac{5}{2} = \frac{20}{12}$

9. $\frac{2}{5} \div \frac{5}{8} = \frac{2}{5} \times \frac{8}{5} = \frac{16}{25}$

10. $\frac{5}{9} \div \frac{2}{3} = \frac{5}{9} \times \frac{3}{2} = \frac{15}{18}$

11. $\frac{3}{4} \div \frac{5}{8} = \frac{3}{4} \times \frac{8}{5} = \frac{24}{20}$

12. $\frac{3}{8} \div \frac{3}{5} = \frac{3}{8} \times \frac{5}{3} = \frac{15}{24}$

13. $\frac{7}{8} \div \frac{3}{4} = \frac{7}{8} \times \frac{4}{3} = \frac{28}{24}$

14. $\frac{8}{9} \div \frac{2}{3} = \frac{8}{9} \times \frac{3}{2} = \frac{24}{18}$

15. $\frac{2}{3} \div \frac{4}{6} = \frac{2}{3} \times \frac{6}{4} = \frac{12}{12}$

16. $\frac{6}{8} \div \frac{3}{5} = \frac{6}{8} \times \frac{5}{3} = \frac{30}{24}$

17. $\frac{2}{5} \div \frac{3}{5} = \frac{2}{5} \times \frac{5}{3} = \frac{10}{15}$

18. $\frac{5}{8} \div \frac{2}{9} = \frac{5}{8} \times \frac{9}{2} = \frac{45}{16}$

19. $\frac{1}{3} \div \frac{6}{7} = \frac{1}{3} \times \frac{7}{6} = \frac{7}{18}$

20. $\frac{4}{5} \div \frac{5}{9} = \frac{4}{5} \times \frac{9}{5} = \frac{36}{25}$

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