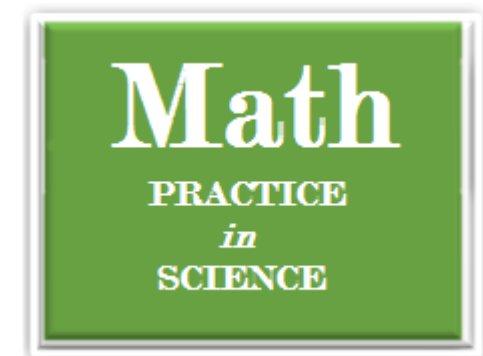# 028 Math Practice
Expressing Fractions in Higher Terms

Many operations in math require raising fractions to higher terms. To raise a fraction to higher terms, multiply the numerator and denominator by the same number.

Example: Write $\frac{7}{8}$ in higher terms with a new denominator of 40.

Step 1: Multiply the numerator by 5.
$7 \times 5 = 35$

Step 2: Multiply the denominator by 5, the multiplier.
$8 \times 5 = 40$

Step 3: $\frac{7}{8} \times \frac{5}{5} = \frac{35}{40}$

$\frac{35}{40}$ is the new fraction.

Example: Write $\frac{5}{7}$ in higher terms with a new denominator of 56.

Step 1: Find the multiplier by dividing 56 by 7.
$\frac{5}{7} = \frac{?}{56}$

Step 2: $56 \div 7 = 8$; therefore, 8 is the multiplier. Multiply both the numerator and denominator by the same number.
$\frac{5}{7} \times \frac{8}{8} = \frac{40}{56}$

Step 3: $\frac{40}{56}$ is the new fraction.

Write these fractions in higher terms.

1. $\frac{5}{11} = \frac{}{33}$

2. $\frac{6}{9} = \frac{}{27}$

3. $\frac{4}{5} = \frac{}{40}$

4. $\frac{6}{13} = \frac{}{39}$

5. $\frac{6}{12} = \frac{}{144}$

6. $\frac{4}{12} = \frac{}{48}$

7. $\frac{8}{9} = \frac{}{36}$

8. $\frac{3}{7} = \frac{}{28}$

9. $\frac{7}{11} = \frac{}{44}$

10. $\frac{11}{12} = \frac{}{156}$

11. $\frac{10}{13} = \frac{}{52}$

12. $\frac{8}{9} = \frac{}{72}$

13. $\frac{2}{9} = \frac{}{90}$

14. $\frac{7}{9} = \frac{}{54}$

15. $\frac{12}{15} = \frac{}{60}$

16. $\frac{23}{24} = \frac{}{48}$

17. $\frac{7}{8} = \frac{}{56}$

18. $\frac{2}{5} = \frac{}{60}$

19. $\frac{5}{8} = \frac{}{64}$

20. $\frac{6}{16} = \frac{}{64}$

21. $\frac{11}{12} = \frac{}{72}$

22. $\frac{3}{5} = \frac{}{55}$

23. $\frac{1}{8} = \frac{}{88}$

24. $\frac{3}{4} = \frac{}{100}$

25. $\frac{10}{21} = \frac{}{84}$

26. $\frac{5}{6} = \frac{}{30}$

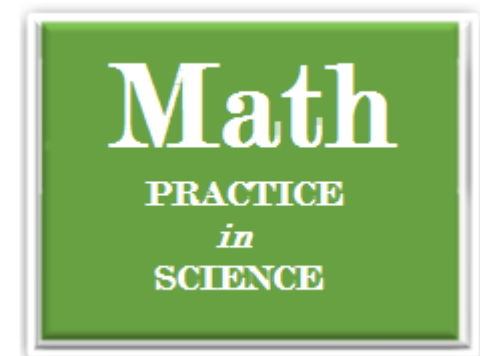27. $\frac{9}{11} = \frac{}{44}$

28. $\frac{3}{7} = \frac{}{21}$

29. $\frac{7}{12} = \frac{}{36}$

30. $\frac{5}{9} = \frac{}{45}$

029 Math Practice
Expressing Fractions in Lower Terms

Expressing fractions in lower terms is the opposite of raising fractions to higher terms. To raise fractions, we multiply. To lower fractions, we divide the numerator and denominator by the same number. Use the greatest number that will divide both.

Example: Express $\frac{14}{18}$ in lowest terms.

Step 1: Divide the numerator by 2.
$14 \div 2 = 7$

Step 2: Divide the denominator by 2.
$18 \div 2 = 9$

Step 3: $\frac{14}{18} = \frac{7}{9}$
$\frac{7}{9}$ is the new fraction.

Example: Express $\frac{16}{20}$ in lowest terms.

Step 1: Divide the numerator by 4.
$16 \div 4 = 4$

Step 2: Divide the denominator by 4.
$20 \div 4 = 5$

Step 3: $\frac{16}{20} = \frac{4}{5}$
$\frac{4}{5}$ is the new fraction.

Express these fractions in lowest terms.

1. $\frac{2}{10} =$

2. $\frac{5}{25} =$

3. $\frac{20}{30} =$

4. $\frac{30}{40} =$

5. $\frac{60}{66} =$

6. $\frac{12}{24} =$

7. $\frac{7}{28} =$

8. $\frac{9}{36} =$

9. $\frac{8}{24} =$

10. $\frac{18}{27} =$

11. $\frac{12}{28} =$

12. $\frac{16}{40} =$

13. $\frac{22}{40} =$

14. $\frac{6}{22} =$

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

16. $\frac{8}{20} =$

17. $\frac{63}{72} =$

18. $\frac{18}{24} =$

19. $\frac{50}{60} =$

20. $\frac{10}{100} =$

21. $\frac{12}{42} =$

22. $\frac{22}{121} =$

23. $\frac{12}{132} =$

24. $\frac{17}{51} =$

25. $\frac{9}{21} =$

26. $\frac{14}{35} =$

27. $\frac{32}{64} =$

28. $\frac{28}{44} =$

29. $\frac{50}{190} =$

30. $\frac{22}{26} =$

31. $\frac{15}{80} =$

32. $\frac{16}{80} =$

33. $\frac{12}{84} =$

34. $\frac{33}{121} =$

35. $\frac{6}{42} =$

36. $\frac{8}{72} =$

37. $\frac{51}{102} =$

38. $\frac{25}{75} =$

39. $\frac{30}{100} =$

40. $\frac{56}{64} =$