

LESSON 5

Reducing Fractions By Inspection

Any fraction can be reduced when the greatest common factor (gcf) of the numerator and the denominator is greater than 1.

Method 1: Think of the greatest common factor of the two numbers and divide.

Example A: Reduce $\frac{8}{12}$

What is the greatest common factor of 8 and 12. The number 4 divides into both

Divide

$$4 \overline{) 8}$$

$$4 \overline{) 12}$$

Therefore

$$\frac{8}{12} = \frac{2}{3}$$

Example B: Reduce $\frac{30}{35}$

5 divides into both numbers

$$\frac{30}{35} = \frac{6}{7}$$

Reducing Each Fraction Using The Greatest Common Factor

gcf is 2

gcf is 3

gcf is 4

1. $\frac{6}{10} = \frac{3}{5}$	11. $\frac{3}{24} = \frac{1}{8}$	21. $\frac{12}{20} = \frac{3}{5}$
2. $\frac{8}{18} = \frac{4}{9}$	12. $\frac{15}{18} = \frac{5}{6}$	22. $\frac{28}{32} = \frac{7}{8}$
3. $\frac{10}{26} = \frac{5}{13}$	13. $\frac{33}{42} = \frac{11}{14}$	23. $\frac{20}{28} = \frac{5}{7}$
4. $\frac{12}{14} = \frac{6}{7}$	14. $\frac{6}{27} = \frac{2}{9}$	24. $\frac{16}{36} = \frac{4}{9}$
5. $\frac{30}{32} = \frac{15}{16}$	15. $\frac{39}{42} = \frac{13}{14}$	25. $\frac{60}{64} = \frac{15}{16}$
6. $\frac{14}{20} = \frac{7}{10}$	16. $\frac{24}{39} = \frac{8}{13}$	26. $\frac{36}{44} = \frac{9}{11}$
7. $\frac{18}{22} = \frac{9}{11}$	17. $\frac{27}{30} = \frac{9}{10}$	27. $\frac{12}{40} = \frac{3}{10}$
8. $\frac{16}{18} = \frac{8}{9}$	18. $\frac{15}{21} = \frac{5}{7}$	28. $\frac{48}{68} = \frac{12}{17}$
9. $\frac{24}{26} = \frac{12}{13}$	19. $\frac{36}{51} = \frac{12}{17}$	29. $\frac{28}{44} = \frac{7}{11}$
10. $\frac{22}{30} = \frac{11}{15}$	20. $\frac{9}{24} = \frac{3}{8}$	30. $\frac{32}{52} = \frac{8}{13}$

Reducing Each Fraction Using The Greatest Common Factor

gcf is 5

gcf is 6

gcf is 7

31. $\frac{10}{15} = \frac{2}{3}$	41. $\frac{12}{30} = \frac{2}{5}$	51. $\frac{21}{70} = \frac{3}{10}$
32. $\frac{35}{40} = \frac{7}{8}$	42. $\frac{18}{24} = \frac{3}{4}$	52. $\frac{7}{56} = \frac{1}{8}$
33. $\frac{15}{20} = \frac{3}{4}$	43. $\frac{30}{36} = \frac{5}{6}$	53. $\frac{21}{35} = \frac{3}{5}$
34. $\frac{20}{45} = \frac{4}{9}$	44. $\frac{18}{48} = \frac{3}{8}$	54. $\frac{14}{49} = \frac{2}{7}$
35. $\frac{25}{30} = \frac{5}{6}$	45. $\frac{12}{42} = \frac{2}{7}$	55. $\frac{35}{56} = \frac{5}{8}$
36. $\frac{15}{55} = \frac{3}{11}$	46. $\frac{24}{54} = \frac{4}{9}$	56. $\frac{28}{49} = \frac{4}{7}$
37. $\frac{10}{35} = \frac{2}{7}$	47. $\frac{12}{18} = \frac{2}{3}$	57. $\frac{35}{42} = \frac{5}{6}$
38. $\frac{5}{30} = \frac{1}{6}$	48. $\frac{36}{42} = \frac{6}{7}$	58. $\frac{28}{63} = \frac{4}{9}$
39. $\frac{25}{40} = \frac{5}{8}$	49. $\frac{72}{78} = \frac{12}{13}$	59. $\frac{84}{91} = \frac{12}{13}$
40. $\frac{35}{60} = \frac{7}{12}$	50. $\frac{30}{72} = \frac{5}{12}$	60. $\frac{21}{98} = \frac{3}{14}$

Reducing Each Fraction Using The Greatest Common Factor

gcf is 8

gcf is 9

gcf is 10

$$61. \frac{16}{24} = \frac{2}{3}$$

$$71. \frac{9}{18} = \frac{1}{2}$$

$$81. \frac{20}{30} = \frac{2}{3}$$

$$62. \frac{32}{40} = \frac{4}{5}$$

$$72. \frac{27}{63} = \frac{3}{7}$$

$$82. \frac{40}{50} = \frac{4}{5}$$

$$63. \frac{16}{56} = \frac{2}{7}$$

$$73. \frac{18}{45} = \frac{2}{5}$$

$$83. \frac{20}{70} = \frac{2}{7}$$

$$64. \frac{24}{64} = \frac{3}{8}$$

$$74. \frac{27}{36} = \frac{3}{4}$$

$$84. \frac{50}{60} = \frac{5}{6}$$

$$65. \frac{8}{24} = \frac{1}{3}$$

$$75. \frac{54}{63} = \frac{6}{7}$$

$$85. \frac{40}{90} = \frac{4}{9}$$

$$66. \frac{32}{72} = \frac{4}{9}$$

$$76. \frac{36}{81} = \frac{4}{9}$$

$$86. \frac{50}{80} = \frac{5}{8}$$

$$67. \frac{24}{40} = \frac{3}{5}$$

$$77. \frac{27}{72} = \frac{3}{8}$$

$$87. \frac{70}{90} = \frac{7}{9}$$

$$68. \frac{56}{72} = \frac{7}{9}$$

$$78. \frac{45}{81} = \frac{5}{9}$$

$$88. \frac{30}{50} = \frac{3}{5}$$

$$69. \frac{16}{88} = \frac{2}{11}$$

$$79. \frac{63}{90} = \frac{7}{10}$$

$$89. \frac{70}{80} = \frac{7}{8}$$

$$70. \frac{56}{96} = \frac{7}{12}$$

$$80. \frac{72}{99} = \frac{8}{11}$$

$$90. \frac{30}{40} = \frac{3}{4}$$