

LESSON 7

Reducing Fractions By Successive Division

Method 2: A fraction can be reduced by repeated division of the prime numbers common to both the numerator and denominator

Example 1: Reduce $\frac{36}{54}$

Start by dividing 36 and 54 by the smallest prime number that is a common factor. (2)

$$\frac{36}{54} = \frac{18}{27}$$

Next divide 18 and 27 by the smallest prime number that is a common factor. (3)

$$\frac{18}{27} = \frac{6}{9}$$

Next divide 6 and 9 by the smallest prime number that is a common factor. (3)

$$\frac{6}{9} = \frac{2}{3}$$

Hence: $\frac{36}{54} = \frac{18}{27} = \frac{6}{9} = \frac{2}{3}$

Find a Reduced Fraction By Successive Division Of Common Factors

1. $\frac{60}{72} = \frac{20}{24} = \frac{5}{6}$	11. $\frac{48}{64}$	21. $\frac{125}{1000}$
2. $\frac{48}{80}$	12. $\frac{80}{88}$	22. $\frac{75}{1000}$
3. $\frac{64}{96}$	13. $\frac{27}{54}$	23. $\frac{50}{1000}$
4. $\frac{54}{81}$	14. $\frac{48}{72}$	24. $\frac{875}{1000}$
5. $\frac{24}{60}$	15. $\frac{16}{96}$	25. $\frac{250}{1000}$
6. $\frac{72}{96}$	16. $\frac{42}{98}$	26. $\frac{80}{1000}$
7. $\frac{36}{90}$	17. $\frac{30}{45}$	27. $\frac{375}{1000}$
8. $\frac{27}{81}$	18. $\frac{56}{98}$	28. $\frac{625}{1000}$
9. $\frac{25}{65}$	19. $\frac{45}{75}$	29. $\frac{800}{1000}$
10. $\frac{16}{40}$	20. $\frac{28}{98}$	30. $\frac{25}{1000}$