

Unit 2: Rationals and Irrationals Day 1

Math 9 Principles

2-1: I can convert rational numbers among their two main forms, fractions and decimals (terminating or repeating).

Find the value of x in each pair of equivalent fractions.

1) $\frac{3}{7} = \frac{x}{63}$ $x = 27$	2) $\frac{2}{3} = \frac{16}{x}$ $x = 24$	3) $\frac{5}{6} = \frac{x}{48}$ $x = 40$	4) $\frac{3}{8} = \frac{33}{x}$ 5) $x = 88$
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Reduce to lowest terms.

6) $\frac{12}{18} = \frac{2}{3}$	7) $\frac{6}{4} = \frac{3}{2}$	8) $\frac{27}{45} = \frac{3}{5}$	9) $\frac{18}{24} = \frac{3}{4}$
10) $\frac{27}{12} = \frac{9}{4}$	11) $\frac{32}{14} = \frac{16}{7}$	12) $\frac{15}{10} = \frac{3}{2}$	13) $\frac{36}{15} = \frac{12}{5}$
14) $\frac{18}{48} = \frac{3}{8}$	15) $\frac{32}{52} = \frac{8}{13}$	16) $\frac{28}{42} = \frac{2}{3}$	17) $\frac{51}{68} = \frac{3}{4}$

Write the decimal equivalent of each.

18) $\frac{1}{2} = 0.5$	19) $\frac{1}{3} = 0.\bar{3}$	20) $\frac{2}{3} = 0.\bar{6}$	21) $\frac{1}{4} = 0.25$
22) $\frac{3}{4} = 0.75$	23) $\frac{1}{5} = 0.2$	24) $\frac{2}{5} = 0.4$	25) $\frac{3}{5} = 0.6$
26) $\frac{4}{5} = 0.8$	27) $\frac{1}{8} = 0.125$	28) $\frac{3}{8} = 0.375$	29) $\frac{5}{8} = 0.625$
30) $\frac{7}{8} = 0.875$	31)	32)	33)

Write the fractional equivalent of each.

34) $0.3 = \frac{3}{10}$	35) $0.45 = \frac{45}{100} = \frac{9}{20}$	36) $0.225 = \frac{225}{1000} = \frac{9}{40}$
37) $0.5 = \frac{1}{2}$	38) $0.\overline{12} = \frac{12}{99} = \frac{4}{33}$	39) $0.\overline{125} = \frac{125}{999}$
40) $0.\overline{6} = \frac{2}{3}$	41) $2.\overline{06} = 2\frac{6}{99} = \frac{204}{99} = \frac{68}{33}$	42) $0.\overline{081} = \frac{81}{999} = \frac{9}{111} = \frac{3}{37}$
43) $0.7 = \frac{7}{10}$	44) $0.55 = \frac{55}{100} = \frac{11}{20}$	45) $0.075 = \frac{75}{1000} = \frac{3}{40}$
46) $0.\overline{8} = \frac{8}{9}$	47) $0.\overline{27} = \frac{27}{99} = \frac{3}{11}$	48) $0.\overline{018} = \frac{18}{999} = \frac{2}{111}$
49) $0.2 = \frac{2}{10} = \frac{1}{5}$	50) $0.28 = \frac{28}{100} = \frac{14}{50} = \frac{7}{25}$	51) $0.8 = \frac{8}{10} = \frac{4}{5}$
52) $0.65 = \frac{65}{100} = \frac{13}{20}$	53) $0.54 = \frac{54}{100} = \frac{27}{50}$	54) $0.72 = \frac{72}{100} = \frac{36}{50} = \frac{18}{25}$
55) $0.48 = \frac{48}{100} = \frac{24}{50} = \frac{12}{25}$	56) $0.125 = \frac{125}{1000} = \frac{1}{8}$	57) $0.625 = \frac{625}{1000} = \frac{25}{40} = \frac{5}{8}$
58) $0.12 = \frac{12}{100} = \frac{6}{50} = \frac{3}{25}$	59) $0.055 = \frac{55}{1000} = \frac{11}{200}$	60) $0.875 = \frac{875}{1000} = \frac{35}{40} = \frac{7}{8}$
61) $0.325 = \frac{325}{1000} = \frac{13}{40}$	62) $0.\overline{3} = \frac{1}{3}$	63) $0.\overline{5} = \frac{5}{9}$
64) $0.\overline{09} = \frac{9}{99} = \frac{1}{11}$	65) $0.\overline{63} = \frac{63}{99} = \frac{7}{11}$	66) $0.\overline{60} = \frac{60}{99} = \frac{20}{33}$
67) $1.2 = 1\frac{2}{10} = \frac{12}{10} = \frac{6}{5}$	68) $2.8 = 2\frac{8}{10} = \frac{28}{10} = \frac{14}{5}$	69) $1.375 = 1\frac{3}{8} = \frac{11}{8}$
70) $3.25 = 3\frac{1}{4} = \frac{13}{4}$	71) $2.875 = 2\frac{7}{8} = \frac{23}{8}$	72) $0.\overline{036} = \frac{36}{999} = \frac{4}{111}$
73) $0.\overline{108} = \frac{108}{999} = \frac{4}{37}$	74) $2.\overline{09} = 2\frac{9}{99} = \frac{207}{99} = \frac{23}{11}$	75) $0.\overline{54} = \frac{54}{99} = \frac{6}{11}$