Recurring Decimals to Fractions

Rewrite these as fractions...

a) $0.444\ldots$

b) $0.454545\ldots$

c) $0.321321321\ldots$

d) $0.1\dot{6}$

e) $0.11\dot{6}$

f) $0.1\dot{1}\dot{6}$

g) $0.101\dot{1}2\dot{3}$

h) $0.\dot{1}4285\dot{7}$

Recurring Decimals to Fractions - Answers

Rewrite these as fractions…

a) $0.444\ldots = \dfrac{4}{9}$

b) $0.454545\ldots = \dfrac{45}{99} = \dfrac{5}{11}$

c) $0.321321\ldots = \dfrac{321}{999} = \dfrac{107}{333}$

d) $0.1\dot{6} = \dfrac{15}{90} = \dfrac{1}{6}$

e) $0.11\dot{6} = \dfrac{7}{60}$

f) $0.1\dot{1}\dot{6} = \dfrac{11.5}{99} = \dfrac{23}{198}$

g) $0.101\dot{1}2\dot{3} = \dfrac{101022}{999000} = \dfrac{16837}{166500}$

h) $0.\dot{1}4285\dot{7} = \dfrac{142857}{999999} = \dfrac{1}{7}$