

Exercise 7.4

Question: 1

Express the following fractions as decimals:

i) $\frac{23}{10}$

ii) $\frac{139}{100}$

iii) $\frac{4375}{1000}$

iv) $12\frac{1}{2}$

v) $75\frac{1}{4}$

vi) $25\frac{1}{8}$

vii) $18\frac{3}{24}$

viii) $\frac{3}{9}735$

ix) $\frac{1}{5}125$

x) $\frac{111}{250}$

Solution:

i) $2310 = 20 + 310 = 2010 + 310 = 2 + 310 = 2.3$

ii) $139100 = 10 + 30 + 9100 = 100100 + 30100 + 9100 = 1 + 310 + 9100 = 1.39$

iii) $43751000 = 4000 + 300 + 70 + 51000 = 40001000 + 3001000 + 701000 + 51000 = 4 + 310 + 7100 + 51000 = 4.375$

iv) $1212 = 12 + 12 = 12 + 1(52)(5) = 12 + 510 = 12.5$

v) $7514 = 75 + 14 = 75 + 1(254)(25) = 75 + 25100 = 75.25$

vi) $2518 = 25 + 1(1258)(125) = 25 + 1251000 = 25.125$

vii) $18324 = 18 + 324 = 18 + 18 = 18 + 125(1125)(8) = 18 + 1251000 = 18.125$

- viii) $39735 = 39 + 735 = 39 + 15 = 39 + 1(25)(2) = 39 + 210 = 39.2$
 ix) $15125 = 15 + 125 = 15 + 1(1)(425)(4) = 15 + 4100 = 15.04$
 x) $111250 = 111(4250)(4) = 4441000 = 0.444$

Question: 2

Express the following decimals as fractions in the lowest form:

- i) 0.5
 ii) 2.5
 iii) 0.60
 iv) 0.18
 v) 5.25
 vi) 7.125
 vii) 15.004
 viii) 20.375
 ix) 600.75

Solution:

$$i) 0.5 = \frac{5}{10} = \frac{1}{2}$$

$$ii) 2.5 = \frac{25}{10} = \frac{5}{2}$$

$$iii) 0.60 = \frac{60}{100} = \frac{3}{5}$$

$$iv) 0.18 = \frac{18}{100} = \frac{9}{50}$$

$$v) 5.25 = \frac{525}{100} = \frac{21}{4}$$

$$vi) 7.125 = \frac{7125}{1000} = \frac{201}{8}$$

$$vii) 15.004 = \frac{15004}{1000} = \frac{3751}{250}$$

$$viii) 20.375 = \frac{20375}{1000} = \frac{163}{8}$$

$$ix) 600.75 = \frac{60075}{100} = \frac{2403}{4}$$

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