

2)	a) Irrational b) \mathbb{Q}	12)	$\frac{751}{250}$	22)	$\frac{1100}{999}$
4)	a) Irrational b) \mathbb{Q}	14)	$\frac{11}{80}$	24)	a) 0.37255 b) 0.372510110111
6)	a) \mathbb{Q} b) \mathbb{Q} c) Irrational	16)	$\frac{5}{9}$	26)	a) 3.1 b) 3.12345678...
8)	0.45	18)	$\frac{1}{12}$	28)	a) 1.5×10^{-9} b) 1.571771771... ⁹⁰
10)	3.25	20)	$\frac{14}{11}$	30)	a) 3.15 b) 3.1424567890...

18) $0.08\bar{3}$
 $10x = 0.83\bar{3}$
 $x = 0.08\bar{3}$

 $9x = .75$
 $9x = \frac{3}{4}$
 $x = \frac{1}{12}$

30) $3\frac{1}{7} = \frac{22}{7} = \frac{132}{42}$
 $3\frac{1}{6} = \frac{19}{6} = \frac{133}{42}$
 $\frac{132.5}{42} = \frac{265}{84}$
 $3\frac{1}{2} = 3.142857$
 $3\frac{1}{8} = 3.1\bar{2}$
 $3.15, 3.1525354555..$
 \mathbb{Q}

4a) $\sqrt{\frac{1}{2} \cdot 4} + \sqrt{\frac{1}{8}}$
 $\frac{\sqrt{2} \cdot \sqrt{2}}{\sqrt{8} \cdot \sqrt{2}}$
 $\frac{\sqrt{2}}{4}$
 irrational

20) $1.\bar{27}$
 $100x = 127.\bar{27}$
 $x = 1.\bar{27}$

 $99x = 126$
 $x = \frac{126}{99} = \frac{14}{11}$