

August 25, 2017

- * Add/Drop
- * SSC #1 - Due Monday
- * Quiz #1 - Wed
 - COR → 1.1
 - Reading
 - Practice sets

Aug 25-8:56 AM

$N = \{1, 2, 3, \dots\}$
 $W = \{0, 1, 2, 3, \dots\}$
 $Z = \{\dots, -2, -1, 0, 1, 2, \dots\}$
 $Q = \{\frac{m}{n} \mid m, n \in Z \text{ and } n \neq 0\}$
 Q'
 R

Aug 25-9:06 AM

$\frac{1}{2}, \frac{5}{8}, \frac{13}{3}$
 $\frac{6}{1}$

6	✓	✓	✓	✓
-6			✓	✓

Aug 25-9:08 AM

$\frac{3}{4} \rightarrow 4 \overline{) 3.00}$
 $\underline{-28}$
 20
 $\underline{20}$
 $0 \leftarrow \text{remainder}$
 $\frac{1}{6} \rightarrow 6 \overline{) 1.000}$
 $\underline{-6}$
 40
 $\underline{36}$
 40
 $\underline{36}$
 4
 ≈ 0.17
almost equal to

Aug 25-9:12 AM

Convert Decimals to fractions

① $0.62 = \frac{62}{100} = \frac{2 \cdot 31}{2 \cdot 2 \cdot 5 \cdot 5} = \frac{31}{50}$

$62 \rightarrow 2 \cdot 31$
 $100 \rightarrow 2 \cdot 50 \rightarrow 2 \cdot 25 \rightarrow 2 \cdot 5 \cdot 5$

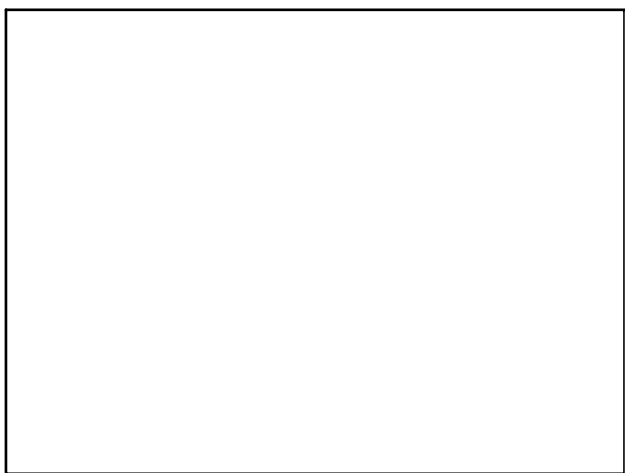
Aug 25-9:17 AM

$Q' = Q \text{ prime} = \text{Irrational}$
 $= \{ \text{All numbers not in } Q \}$
 $\pi \approx 3.14\dots$
 $e \approx 2.7\dots$
 $\sqrt{2}, \sqrt{3}, \sqrt{5}, \sqrt[3]{2}$

Aug 25-9:45 AM

$$\mathbb{R} = \{x \mid x \text{ is a Real Number}\}$$

Aug 25-9:48 AM



Aug 25-9:31 AM

② $0.\overline{27}$
 $0.2727272727\dots$

Steps

a.) Let $x = 0.\overline{27}$
 $x = 0.272727\dots$ *drop place →*

b.) multiply by a power 10 to make a whole number.

$100 \cdot x = 0.272727\dots (100)$
 $100x = 27.272727\dots$

c.) subtract a.) from b.)

$$\begin{array}{r} 100x = 27.272727\dots \\ \underline{1x = 0.272727\dots} \\ 99x = 27 \end{array}$$

$$\frac{99x}{99} = \frac{27}{99}$$

$$x = \frac{27}{99} = \frac{3 \cdot 9}{3 \cdot 33} = \frac{3}{11}$$

Aug 25-9:21 AM