

## **Types of Dec**

**Connect**

**Changing fractions to decimals**

**Rational numbers**

I do \* All rational numbers can be re  
either terminating decimals or rep

Terminating Decimals

$$4\frac{1}{2}$$

$$-6\frac{5}{8}$$

$$\frac{17}{16}$$

Repeating De

$$5\frac{1}{3}$$

$$-4\frac{4}{9}$$

$$\frac{15}{7}$$

I do

**All terminating and repeating  
rational nun**

**Terminating De**

$$12.5 \rightarrow 12 \frac{5}{10} \rightarrow \frac{125}{10}$$

rational

$$-6.22 \rightarrow -6 \frac{22}{100}$$

rational

$$\downarrow$$
$$-6 \frac{11}{50}$$
$$\downarrow$$
$$-3 \frac{11}{50}$$

**Repeating De**

$$.\overline{3} \rightarrow \frac{1}{3}$$

$$.\overline{2} \rightarrow \frac{2}{9}$$

$$-5.\overline{123} \rightarrow 5 \frac{?}{?}$$

We do \* All rational numbers can be shown as \*  
decimals or terminating

Terminating De

$$-2\frac{8}{10}$$

$$5\frac{11}{20}$$

$$-\frac{11}{12}$$

Repeating De

$$1\frac{1}{3}$$

$$-2\frac{5}{7}$$

$$\frac{5}{11}$$

We do

**All terminating decimals and repeating decimals**  
**are rational numbers**

**Terminating Decimals**

3.25

-12.45

**Repeating Decimals**

5. $\overline{6}$

-. $\overline{142857}$

You do together  
on whiteboard

Is this a terminating or repeating decimal?

$$-2\frac{6}{15}$$

$$\frac{9}{11}$$

Is this a rational or irrational number?

$$-3.25$$

$$-3.\overline{25}$$

You do alone on  
index card

Is this a terminating or repeating decimal?

$$1\frac{4}{7}$$

$$-6\frac{23}{25}$$

Is this a rational or irrational number?

$$1.\overline{234}$$

$$3.2567816$$