Type of Number	Description	Examples
Terminating Decimals	Any decimal with a finite number of decimal places is a **terminating decimal.**	$0.1,\ -0.25,\ 10.432,\ -1.701,\ 8.0003,\ \ldots$
Non-terminating Decimals	Any decimal with an infinite number of decimal places is a **non-terminating decimal**.	$\pi(\text{pi}),\ \phi(\text{the golden ratio}),\ \frac{1}{3},\ \frac{8}{11},\ 4\frac{2}{7},\ -3\frac{1}{6},\ \ldots$
Recurring Decimals	Any decimal where the decimal places repeat indefinitely is a **recurring decimal**. Recurring decimals are a subset of non-terminating decimals.	$0.\bar{2},\ 6.3\bar{7},\ -3.\dot{4},\ -2.2\dot{6}\dot{5},\ \frac{4}{9},\ \ldots$
Non-recurring Decimals	Any decimal that cannot be expressed as a fraction where the numerator and denominator are integers is a **non-recurring decimal**. Non-recurring, non-terminating decimals are irrational numbers.	$\pi,\ \phi,\ \sqrt{2},\ \frac{\sqrt{3}}{2},\ \ldots$
Proper Fractions	Any fraction that has no whole number part and the numerator is smaller than the denominator is a **proper fraction**.	$\frac{1}{2},\ -\frac{3}{4},\ \frac{56}{789},\ \frac{10}{112},\ \ldots$
Improper Fractions	Any fraction that has no whole number part and the numerator is larger than the denominator is an **improper fraction**.	$\frac{10}{3},\ -\frac{13}{4},\ \frac{5}{2},\ -\frac{34}{16},\ -\frac{113}{28},\ \ldots$
Mixed Numbers	Any fraction that has a whole number part and a fractional part is a **mixed number**.	$1\frac{2}{3},\ -4\frac{5}{67},\ 89\frac{10}{11},\ -12\frac{1}{3},\ \ldots$