

SwBAT: compare real and complex numbers

Irrational numbers are never ending and never repeating. No pattern to it.

area of Square

$$\begin{array}{l} 7 \\ (a) \end{array} \begin{array}{l} \downarrow \\ (2+\sqrt{2})(2+\sqrt{2}) \\ 4 + 2\sqrt{2} + 2\sqrt{2} + \sqrt{4} \\ 4 + 4\sqrt{2} + 2 \\ 4\sqrt{2} \end{array}$$

area of Rectangle

$$\begin{array}{l} 7 \\ (b) \end{array} \begin{array}{l} (3+\sqrt{2})(2+\sqrt{5}) \\ 6 + 3\sqrt{5} + 2\sqrt{2} + \sqrt{10} \end{array}$$

$$\begin{array}{l} 10 \\ 9 \end{array} \begin{array}{l} (\sqrt{2} \cdot i)^2 \\ 2i^2 \\ (2)(-1) = -2 \end{array}$$

$$(b) \begin{array}{l} 3i \times 3i \\ 9i^2 = (9)(-1) = -9 \end{array}$$

Example of what's on the test

$$\begin{array}{l} -i^{10} \\ i^2 \cdot i^2 \cdot i^2 \cdot i^2 \cdot i^2 = -i \end{array}$$

$$\begin{array}{l} i^7 \\ i^2 \cdot i^2 \cdot i^2 \cdot i = -i \end{array}$$

3.10

Integer - a whole number that which does not include a fraction.

Rational - a real number that can be written as a fraction

Irrational - a real number that can't be written as a fraction

Real number - includes all rational and irrational numbers.

Whole - not fractions or decimals → positive

Natural - counting numbers, including zero.