Imaginary numbers were created to take the square root of a negative number.

The imaginary unit, *i*, is defined as...

$$i = \sqrt{-1}$$

$$\sqrt{-9}$$

$$\sqrt{-49}$$

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The imaginary unit, *i*, is defined as...

$$i = \sqrt{-1}$$

$$\sqrt{-18}$$

$$-\sqrt{-24}$$

Complex Number

is a number that can be written in the form a + bi

Real Part
$$\Rightarrow a + bi \Leftarrow \text{Imaginary Part}$$

$$2 + 5i$$
 $-6 - 2i$

Find the values of x and y.

$$5x + 9i = 25 + (3y)i$$

$$3x - 5i = 6 - (10y)i$$

The complex conjugate of a complex number a + bi is the complex number a - bi.

$$a + bi$$
 $a - bi$

(change the sign of *b*)

Find the complex conjugate.

$$5 + 3i$$

$$2i - 4$$

$$5 + 3i$$
 $2i - 4$ $-4i + 8$