

$$2 + 3i$$

*Scavenger Hunt*

Simplify:

$$(5i - 3)(2i + 1)$$

$$-13 - i$$

### *Scavenger Hunt*

What are the values of  $x$  and  $y$ ?

$$3 + yi = x - 7i$$

$$x = 3$$

$$y = -7$$

### *Scavenger Hunt*

What are the values of  $x$  and  $y$ ?

$$(x + 6i) = (3 - i) + (4 - 2yi)$$

$$x = 7$$

$$y = -\frac{7}{2}$$

### *Scavenger Hunt*

Simplify:

$$(1-i)^3$$

$$-2 - 2i$$

### *Scavenger Hunt*

Simplify:

$$\left(\frac{\sqrt{3}}{2} + \frac{1}{2}i\right)^3$$

*i*

## *Scavenger Hunt*

Find the product of the complex number and its complex conjugate:

$$5 - 6i$$

# 61

## *Scavenger Hunt*

Find the product of the complex number  
and its complex conjugate:

$$-1 - i\sqrt{2}$$

# 3

## *Scavenger Hunt*

Write in the standard form  $a + bi$ :

$$\frac{2+i}{3i}$$



$$\frac{1}{3} - \frac{2}{3}i$$

### *Scavenger Hunt*

Write in the standard form  $a + bi$ :

$$\frac{(2-i)(1+2i)}{5+2i}$$

$$\frac{26}{29} + \frac{7}{29}i$$

### *Scavenger Hunt*

Write in the standard form  $a + bi$ :

$$\frac{i}{2-i}$$

$$-\frac{1}{5} + \frac{2}{5}i$$

### *Scavenger Hunt*

Solve:

$$3x^2 + x + 2 = 0$$

$$x = -\frac{1}{6} \pm \frac{i\sqrt{23}}{6}$$

### *Scavenger Hunt*

Solve:

$$x^2 + x + 11 = 5x - 8$$

$$x = 2 \pm i\sqrt{15}$$

## *Scavenger Hunt*

Simplify:

$$|4 - 7i|$$

$$\sqrt{65}$$

*Scavenger Hunt*

Simplify:

$$|-115 + 252i|$$

# 277

## *Scavenger Hunt*

If  $2 - 3i$  is a solution to  $ax^2 + bx + c = 0$ , then what is the other solution?