Imaginary Numbers

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find Values that make the equation true

1. 2x + 2i = 10 + 2yi

In an equation with real numbers the real parts of the equation must be equal to each other and the imaginary parts must be equal to each other.

So:

2x = 10 x = 5

2 = 2y y = 1

2. 6x – 2i = (-2y) i + 10

6x = 10 x = 5/3

2 = -2y y = -1

3. -40i +2x = (5y) i -12

-40 = 5y y = -8

2x = -12 x = -6

4. -8y + 14i = (7x) I – 2

-8y = -2 y = ¼

14 = 7x x = 2

5. 2x – 20i = 8 – 4y)i

2x = 8 x = 4

-20 = 4y y = -5

6. 5i – 6x = 10 (y)I + 2

5 = 10y y = ½

-6x = 2 x = -1/3