

11/14 Sec. 1.6

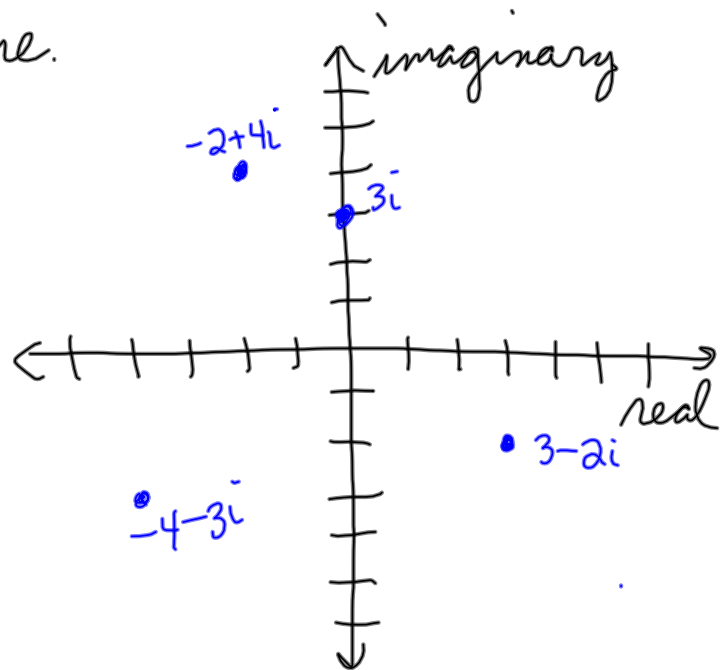
Plot the complex numbers in the same complex plane.

a. $3 - 2i$

b. $-2 + 4i$

c. $3i$

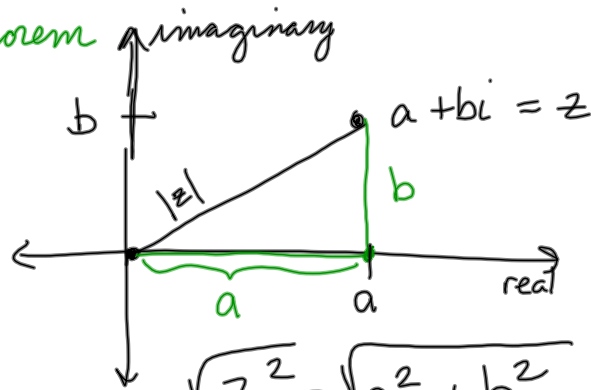
d. $-4 - 3i$



Absolute Value of a Complex Number

Pythagorean Theorem

$$a^2 + b^2 = c^2$$



$$\sqrt{z^2} = \sqrt{a^2 + b^2}$$

$$|z| = \sqrt{a^2 + b^2}$$

Find the absolute value of each complex number.

a. $2 + 5i$ $|z| = |2 + 5i| = \sqrt{2^2 + 5^2}$

$$z = 2 + 5i \quad = \sqrt{4 + 25}$$

$$= \sqrt{29}$$

b. $4 - i$

$$|z| = |4 - i| = \sqrt{4^2 + (-1)^2}$$

$$= \sqrt{16 + 1}$$

$$= \sqrt{17}$$

P. 46 (34 - 46) all
(51 - 61) odd