

The Weekly Rigor

No. 106

“A mathematician is a machine for turning coffee into theorems.”

July 2, 2016

SAT Math Test Problem Children: Complex Numbers (Part 5)

22.

$$\frac{5 - 2i}{4 - 3i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

23.

$$\frac{8 + 4i}{6 - 5i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

24.

$$\frac{2 + 3i}{4 - 7i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

25.

$$\frac{8 - 3i}{3 + 2i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

26.

$$\frac{2 - 5i}{4 + 3i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

27.

$$\frac{4 + 3i}{5 + 2i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

28.

$$\frac{4 + 6i}{3 + 5i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

29.

$$\frac{-4 - 2i}{-3 - 5i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

30.

$$\frac{-10 - 4i}{5 + i}$$

If the expression above is rewritten in the form $a + bi$, where a and b are real numbers, what is the value of a ? (Note: $i = \sqrt{-1}$)

“Only he who never plays, never loses.”