

"Why did Jimmy do well on the Math test after drinking orange juice?"

Key

On #1-11, simplify each expression, then on #12-17 solve each equation. The answer to each problem will match a letter that will allow you to figure out the joke.

Simplify.

(N) 1. $\sqrt{-49} = 7i$

(E) 2. $-\sqrt{-100} = -10i$

(T) 3. $3\sqrt{-18} = 9i\sqrt{2}$

(N) 4. $-5\sqrt{-9} = -15i$

(A) 5. $3 + \sqrt{-25} = 3 + 5i$

(O) 6. $(3 + 2i) + (2 + 7i) = 5 + 9i$

(E) 7. $(4 - 5i) - (-10 + 3i) = 14 - 8i$

(S) 8. $2(3 + 6i) - 3(7 - 5i) = -15 + 27i$

(E) 9. $(2 + \sqrt{-25}) + (-8 - \sqrt{-9}) = -6 + 2i$

(C) 10. $(3 - 5\sqrt{-7}) - (4 + 3\sqrt{-7}) = -1 - 8i\sqrt{7}$

(T) 11. $(2 - 7\sqrt{-18}) + (-3 + 4\sqrt{-50}) = -1 - i\sqrt{2}$

Solve.

(R) 12. $\sqrt{x^2} = \sqrt{81}$
 $x = \pm 9i$

(H) 13. $\sqrt{x^2} = \sqrt{-2}$
 $x = \pm i\sqrt{2}$

(D) 14. $x^2 + 49 = 0$
 $x^2 = -49$
 $x = \pm 7i$

(C) 15. $x^2 + 50 = 2$
 $x^2 = -48$
 $x = \pm 4i\sqrt{3}$

(W) 16. $3x^2 + 12 = x^2 - 20$
 $2x^2 = -32$
 $x^2 = -16$
 $x = \pm 4i$

(A) 17. $5(x^2 - 4) = 3(2x^2 + 6)$
 $5x^2 - 20 = 6x^2 + 18$
 $-20 - 18 = 6x^2 - 5x^2$
 $-38 = x^2$
 $\pm i\sqrt{38} = x$

14 - 8i	-10i	±9i	-15 + 27i	±4i	-15i	3 + 5i	-1 - i√2	±7i
E	E	R	S	W	N	A	T	D
±i√2	9i√2	-1 - 8i√7	7i	±i√38	-6 + 2i	±4i√3	5 + 9i	
H	T	C	N	A	E	C	O	

H E W A S C O N C E N T R A T E D

13 2 16 5 8 10 6 4 15 9 1 11 12 17 3 7 14