## Senior Equations<sup>®</sup> Variations 2016-17

All the Junior variations for this year plus the following:

- 11. <u>Imaginary</u> | (sideways minus) shall represent the imaginary number *i* (such that  $\hat{l} = -1$ ). | may be placed immediately before or after a numeral without the x sign. When this variation is selected, all roots of  $a^b$ , where *a* is a complex number and *b* is a rational number, are available. Note: This variation may be chosen even if no signs (or wild cubes) are in Resources.
- **12.** <u>Decimal in Goal</u> Each Equation-writer may determine where decimal points occur in the Goal.
- **13.** <u>Log</u> + (sideways  $\div$ ) represents the log operation. Thus if *a* and *b* are positive real numbers  $(b \ 1)$ , a + b equals  $\log_b a$ .