

Homework

p. 495: 5, 12, 13, 14, 55, 56

SIMPLIFYING EXPRESSIONS Simplify the expression.

5. $(2e^{3x})^3$

12. $\frac{4e^x}{e^{4x}}$

13. $\sqrt[3]{8e^{9x}}$

14. $\frac{6e^{4x}}{8e}$

55. **CAMERA PHONES** The number of camera phones shipped globally can be modeled by the function $y = 1.28e^{1.31x}$ where x is the number of years since 1997 and y is the number of camera phones shipped (in millions). How many camera phones were shipped in 2002?

56. **BIOLOGY** Scientists used traps to study the Formosan subterranean termite population in New Orleans. The mean number y of termites collected annually can be modeled by $y = 738e^{0.345t}$ where t is the number of years since 1989. What was the mean number of termites collected in 1999?