

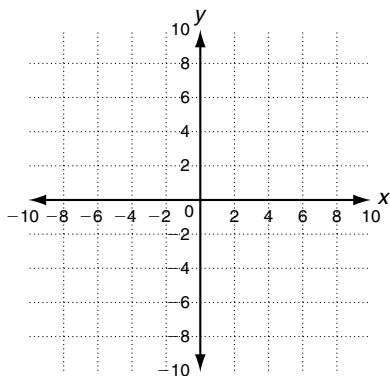
**LESSON**

**Practice B**

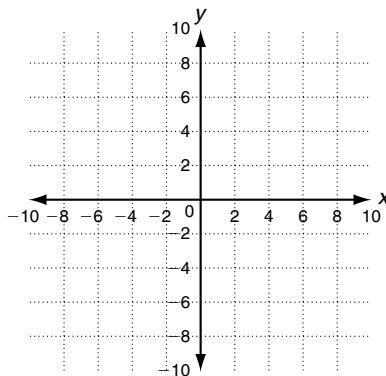
**7-6 The Natural Base, e**

**Graph.**

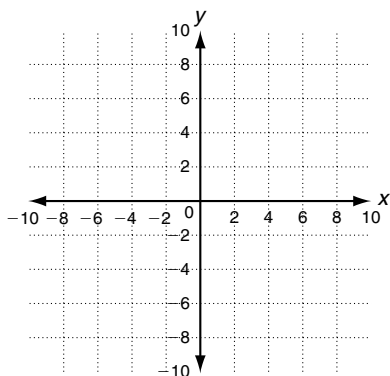
1.  $f(x) = e^{2x}$



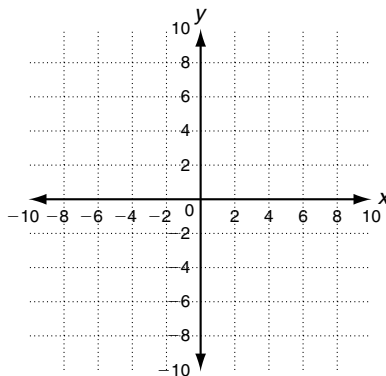
2.  $f(x) = e^{0.5x}$



3.  $f(x) = e^{1+x}$



4.  $f(x) = e^{2-x}$



**Simplify.**

5.  $\ln e^{x+2}$

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6.  $e^{\ln 2x}$

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7.  $e^{7 \ln x}$

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8.  $\ln e^{3x+1}$

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9.  $\ln e$

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10.  $\ln e^{2x+y}$

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**Solve.**

11. Use the formula  $A = Pe^{rt}$  to compute the total amount for an investment of \$4500 at 5% interest compounded continuously for 6 years.

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12. Use the natural decay function,  $N(t) = N_0e^{-kt}$ , to find the decay constant for a substance that has a half-life of 1000 years.

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