**Differentiating** $y=ae^{kx}$

If $y=e^{kx}$, where $k$ is a constant, then $\frac{dy}{dx}=ke^{kx}$

Different $e^{5x}$ with respect to $x$.

Different $e^{-x}$ with respect to $x$.

Different $4e^{3x}$ with respect to $x$.

**More Graph Transformations**

Sketch $y=e^{3x}$

Sketch $y=5e^{-x}$

Sketch $y=2+e^{\frac{1}{3}x}$

Sketch $y=e^{-2x}-1$

Exercise 14B Pg 316-317

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