Name: **Date:**

Practice: Comparing Functions Using Average Rate of Change A

For problems 1–3, determine the type of function and whether its *a*-value is positive or negative.

1. $f(x) = \frac{3}{5}x^2 - 3$

2. $f(x) = 119 \bullet (0.2)^x$

3. $f(x) = \frac{-9x}{4} + 3.8$

For problems 4–8, describe the end behavior of each function.

4. $f(x) = -3 \bullet 2^x$

5. $f(x) = 4(x-2)^2 + 1$

6. $f(x) = -\frac{x+8}{9}$

continued

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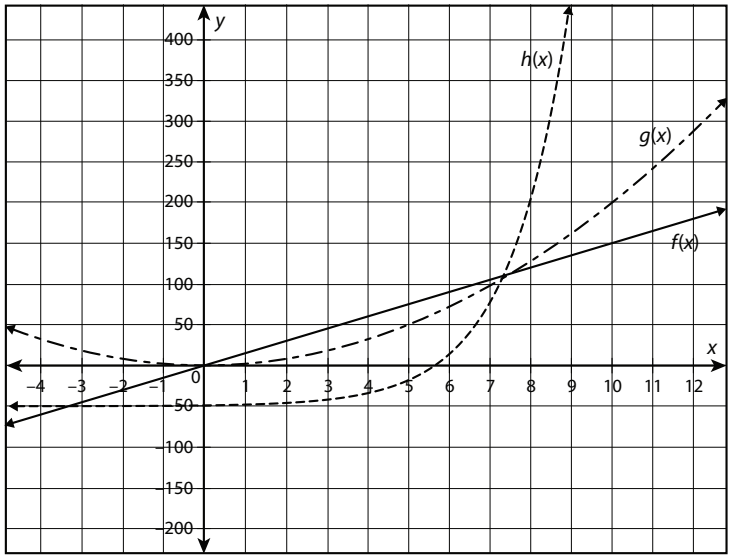
7. $f(x) = 172^{x+1.5}$

8. $f(x) = -\frac{6x^2}{11} - 2800$

Use the graph to complete problems 9 and 10.



9. Describe the end behavior of $g(x)$.

10. As the value of x increases, will either $f(x)$ or $g(x)$ surpass $h(x)$? How do you know?