

H Alg 2

Function Family Sketching 2

Rational, Exponential, Log, Trig

Sketch a graph of each function. Name the family it belongs to. Give the domain, range, tell where it is increasing and decreasing. Identify any asymptotes and intercepts and describe the end behavior. Tell what symmetry it has, if any.

1. $f(x) = 3 \sin x$

2. $f(x) = -6(4)^x$

3. $f(x) = -\frac{1}{4} \log x$

4. $f(x) = \frac{8}{x^9}$

5. $f(x) = \frac{1}{2} \left(\frac{2}{5} \right)^x$

6. $f(x) = -\tan x$

7. $f(x) = 8 \log x$

8. $f(x) = -\frac{1}{x^8}$