

H Alg 2

Function Family Sketching 2

Rational, Exponential, Log, Trig, Piecewise

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

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