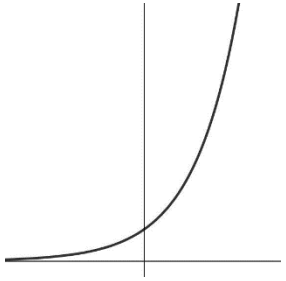
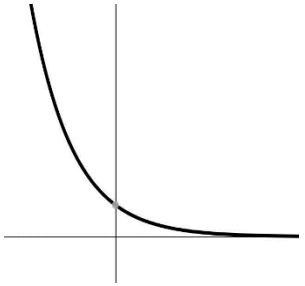
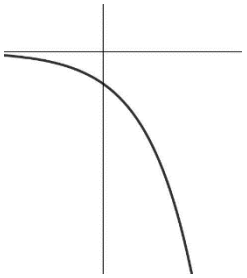
Exponential Functions: Equal Factors over Equal Intervals

Representation	Identify rate of change by:
Tables	• Constant ratio between consecutive outputs. • Equal factors over equal intervals. $r^{(x_2-x_1)} = \frac{y_2}{y_2}$
Graphs	• Smooth curve, where the change between points is by a constant ratio  r > 1, "+" *y*-intercept  0< r < 1  r > 1, "–" *y*-intercept
Equations	• In recursive (discrete): *previous output* · *common factor* • In explicit: repeated multiplication presents as an POWER (exponent) Ex: $y = 3(4)^x$ • The constant ratio/factor is the base of the exponent.