

Matching Exponential Graphs and Equations:

Name: _____

Directions: Match each equation first with a description of the transformations of the equation (number match) and then with its graph (letter match).

$y = 3^x$
 Number Match: 2
 Letter Match: d

$y = 3^{-x}$
 Number Match: 3
 Letter Match: e

$y = 3^x - 4$
 Number Match: 7
 Letter Match: f

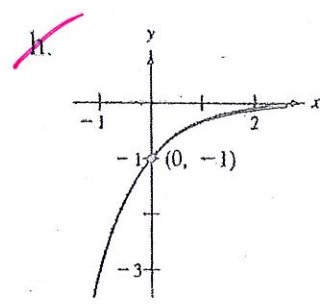
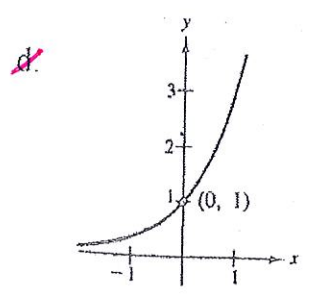
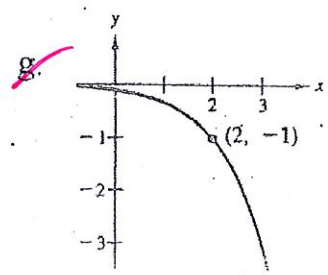
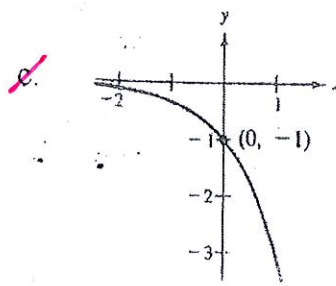
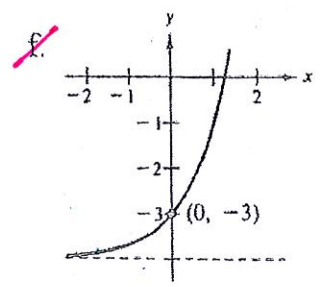
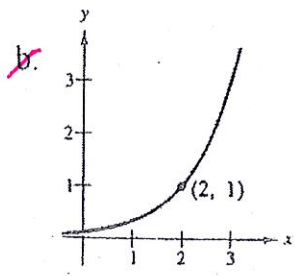
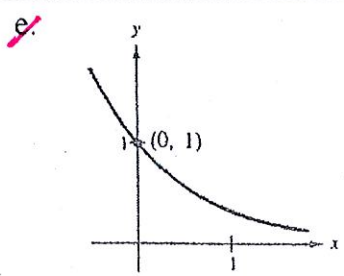
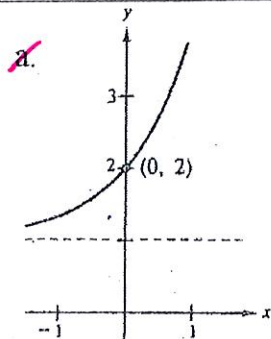
$y = -3^{x-2}$
 Number Match: 1
 Letter Match: g

$y = -3^{-x}$
 Number Match: 6
 Letter Match: h

$y = 3^x + 1$
 Number Match: 4
 Letter Match: a

$y = -3^x$
 Number Match: 8
 Letter Match: c

$y = 3^{x-2}$
 Number Match: 5
 Letter Match: b



- ~~1.~~ $y = 3^x$ reflected over the x axis and shifted right two
- ~~2.~~ $y = 3^x$ with no transformations
- ~~3.~~ $y = 3^x$ reflected over the y-axis
- ~~4.~~ $y = 3^x$ shifted up 1
- ~~5.~~ $y = 3^x$ shifted right 2
- ~~6.~~ $y = 3^x$ reflected over the x and y axis
- ~~7.~~ $y = 3^x$ shifted down 4
- ~~8.~~ $y = 3^x$ reflected over the x axis