

Write an equation given the parent fcn + description

1.  $y = x^2$  vertical reflection, vertical stretch of 3  
translation 3L, 4U
2.  $y = \frac{1}{x^2}$  vertical shrink of  $\frac{1}{4}$ , horizontal reflection,  
translation 8R, 2D
3.  $y = \log x$  vertical stretch of 5, horizontal shrink of  $\frac{1}{2}$   
translation 7U
4.  $y = \tan x$  horizontal stretch of 4, translation 3L
5.  $y = \sqrt{x}$  horizontal + vertical reflection, translation  
2L
6.  $y = |x|$  vertical reflection, vertical shrink of  $\frac{2}{3}$   
translation 1R, 1U
7.  $y = x$  vertical stretch of 10, translation 9D
8.  $y = \cos x$  horizontal stretch of 7, translation  $\frac{1}{2}L$ ,  
6D
9.  $y = \frac{1}{x}$  Translation 4L, 2U
10.  $y = \sqrt[3]{x}$  vertical reflection, horizontal stretch of 10  
translation 3R, 5D

Describe the transformations using proper vocab.

State what  $a$ ,  $b$ ,  $h$  and  $k$  equal First. State parent fcn.

11.  $y = \frac{5}{4}(x-1)^3 + 7$

12.  $y = -\sin(\frac{1}{4}(x+1)) - 3$

13.  $y = 6x + 9$

14.  $y = \log(-3(x-1)) - 8$