1. This is just the graph of the \( \tan x \) function. Since \( \tan x \) has period of \( x = \pi \) we know
\[ y = \tan x = \tan (x + \pi) \] so \( y = \tan (x + \pi) \) is correct choice.

3. Notice graph moves downward from left to right so it is a negative tangent function. It has also been shifted \( \frac{\pi}{2} \) units right so we know it is
\[ y = -\tan (x - \frac{\pi}{2}) \]

11.

15. Graph of \( \cot x \) is shifted \( \frac{\pi}{2} \) left \( \rightarrow y = \cot (x + \frac{\pi}{2}) \)

17. \( y = 2 \cot x \rightarrow \) has asymptotes when \( \sin x = 0 \)
\[ \text{graphed } 4 \text{ periods} \]