- 5. [5 points] Find a formula for one polynomial p(z) that satisfies all of the following conditions:
 - $\bullet \lim_{z \to \infty} p(z) = -\infty \quad \text{and} \quad \lim_{z \to -\infty} p(z) = -\infty$
 - The only zeros of p(z) are z = -2, z = 1, and z = 3.
 - The point (2, -12) is on the graph of p(z).
 - The degree of p(z) is at most 5.

Show your work and reasoning carefully. You might find it helpful to first sketch a graph. There may be more than one possible answer, but you should give only one answer.

Answer: p(z) =

6. [5 points] Find all solutions to the equation

$$5\tan\left(2x + \frac{\pi}{2}\right) - 13 = 12$$

for x between 0 and 5. Show your work carefully and give your answer(s) in exact form.