2 **In this question you must show detailed reasoning.**
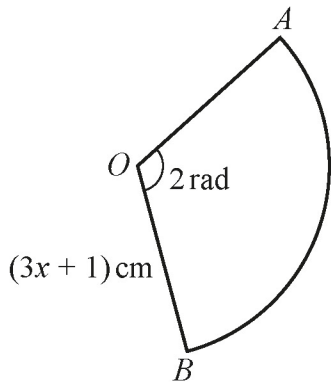

The diagram shows a sector AOB of a circle with centre O and radius $(3x+1)$ cm. The angle AOB is 2 radians. The area of sector AOB is less than $(44x-7)$ cm^2.

Find the set of possible values of x. Give your answer in set notation. **[5]**