## Question 2

A point $X$ has co-ordinates $(-1,6)$ and the slope of the line $X C$ is $\frac{1}{7}$.
(a) Find the equation of $X C$. Give your answer in the form $a x+b y+c=0$, where $a, b, c \in \mathbb{Z}$.

(b) $\quad C$ is the centre of a circle $s$, of radius 5 cm . The line $l: 3 x+4 y-21=0$ is a tangent to $s$ and passes through $X$, as shown. Find the equation of one such circle $s$.


