Math 135, Calculus 1, Fall 2020

Weekly Quiz 09-09

Question 1. Find the equation of the circle with center $(3, 1)$ and radius 9.

$(x-x_0)^2+(y-y_0)^2=r^2$

So $(x_0, y_0)=(3,1)$, $r=9$

$$\boxed{(x-3)^2+(y-1)^2=81}$$

Question 2. Find the equation of the line that is:

- parallel to the line $y = 5x - 4$, and
- passes through the point $(5, 2)$.

parallel to $y=5x-4 \Rightarrow$ slope $m=5$

point $(x_0, y_0)=(5,2)$:

$y-y_0=m(x-x_0)$

$$\boxed{y-2=5(x-5)}$$

$$\boxed{y=5x-23}$$