

Determine the Equation(s) of the line(s) that pass through the given point and that are tangent to the graph of the given function:

1. $f(x) = -2x^2 + 3x - 5$, $(4, -17)$

2. $f(x) = \sqrt{3-x}$, $(-12, 4)$

3. $f(x) = \frac{x-2}{x+3}$, $(-2, 16)$

Solutions:

1. $y = -5x + 3$ and $y = -13x + 27$

2. $y = -\frac{1}{6}x + 2$

3. $y = 5x + 26$ and $y = 45x + 106$