

Exercise ---

Find the slope of the line tangent to the curve at the point provided.

1. $f(x) = x^2$, $P(3,9)$
 2. $f(x) = -3x^2$, $P(3,-12)$
 3. $f(x) = \frac{1}{2}x^2$, $P(4,8)$
 4. $f(x) = x^2 + 2x - 5$, $P(3,10)$
 5. $f(x) = \frac{2}{x}$, $P(4,1/2)$
 6. $f(x) = x^3$, $P(2,8)$
 7. $f(x) = x^2$, $P(a,a^2)$
 8. $f(x) = x^2 + x - 6$, $P(3,6)$
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Answers to Exercise**(1)** 6**(2)** -18**(3)** 4**(4)** 8**(5)** $-\frac{1}{8}$ **(6)** 12**(7)** $2a$ **(8)** 7