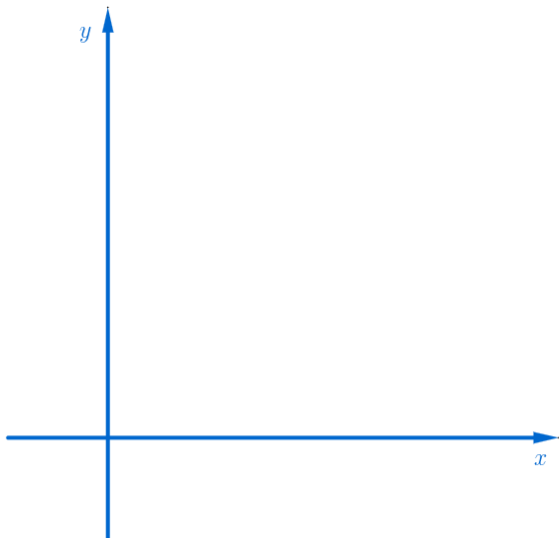


# 순간변화율

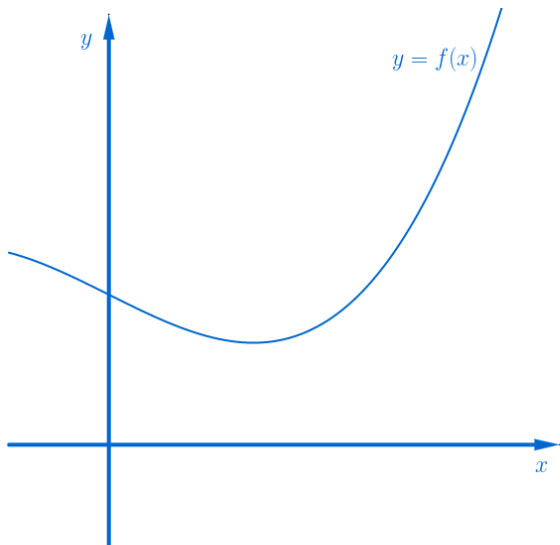
(Instantaneous rate of change)



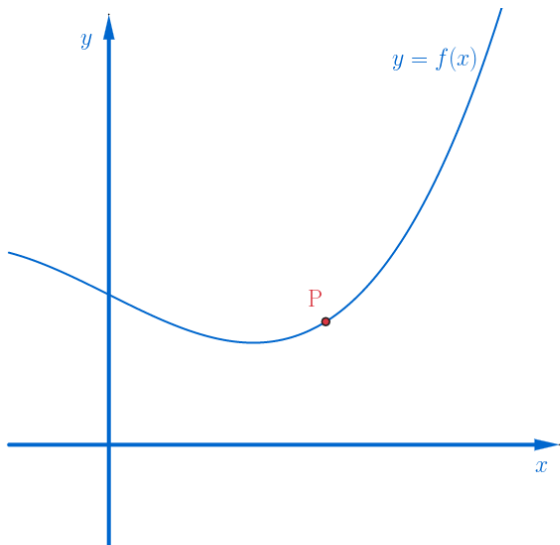
# Instantaneous rate of change



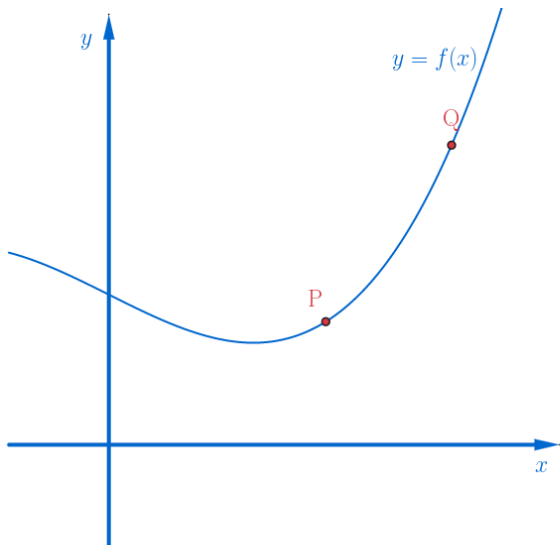
## Instantaneous rate of change



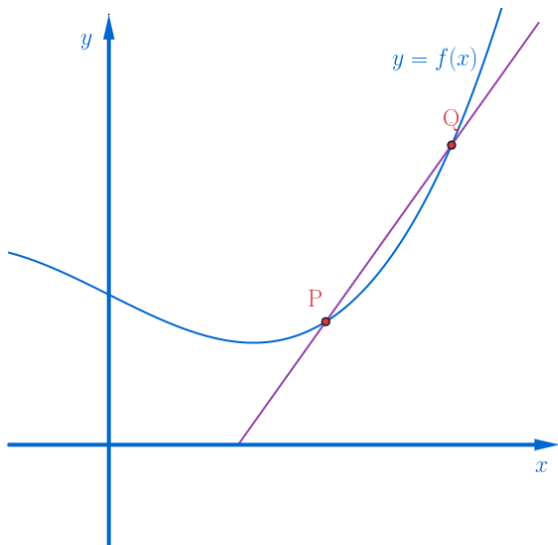
# Instantaneous rate of change



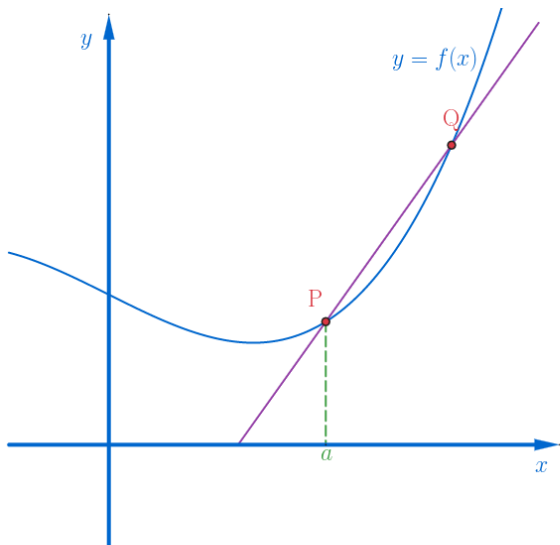
## Instantaneous rate of change



## Instantaneous rate of change

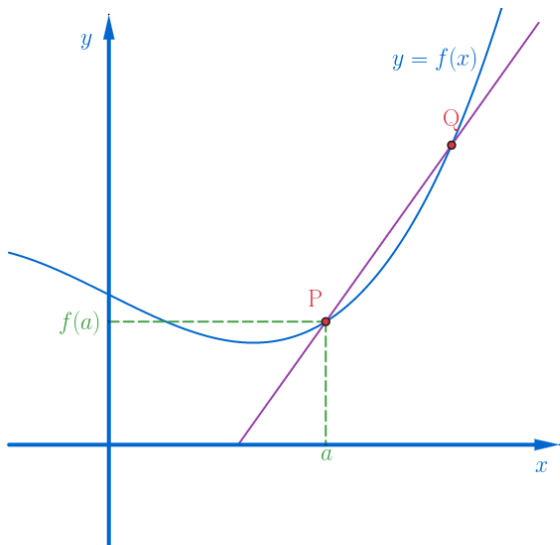


# Instantaneous rate of change

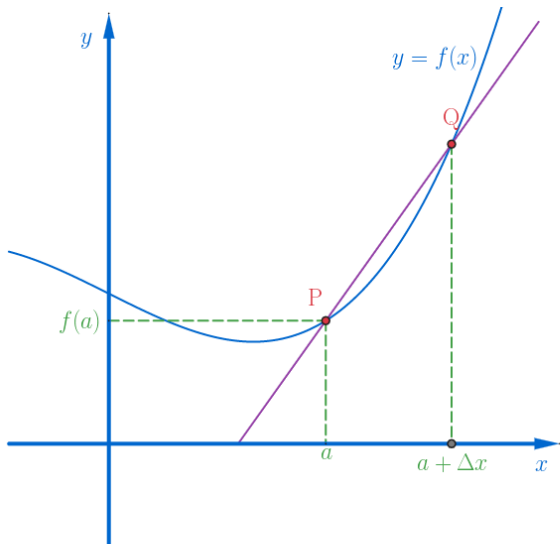




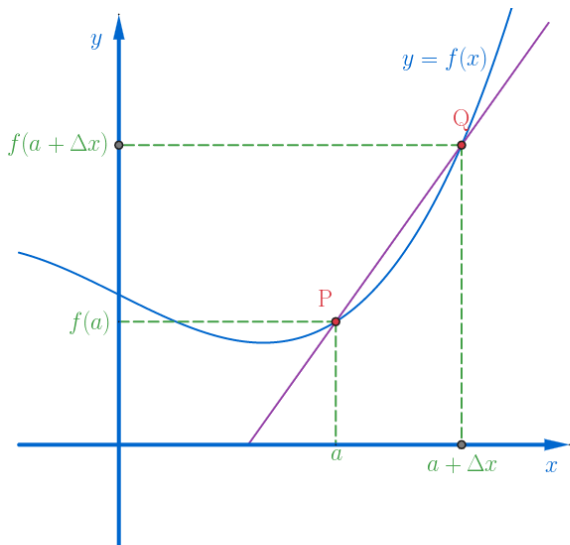
# Instantaneous rate of change



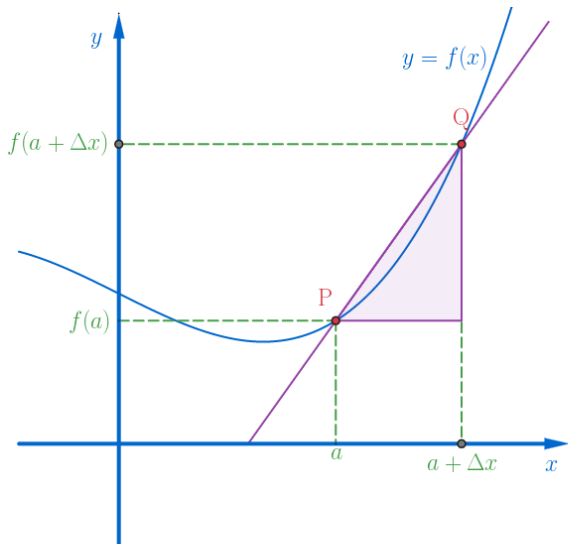
# Instantaneous rate of change



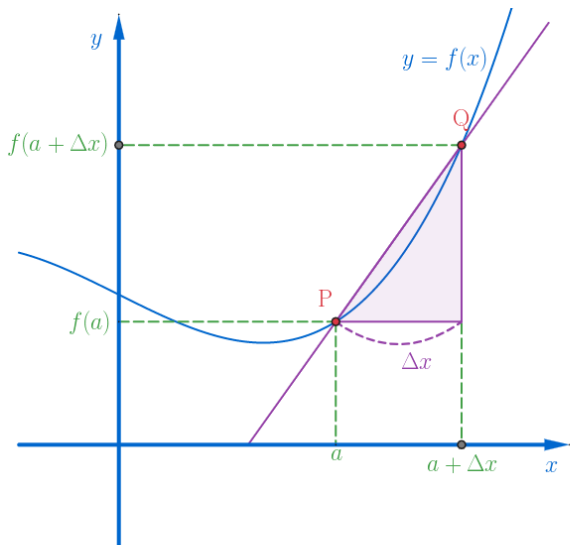
## Instantaneous rate of change



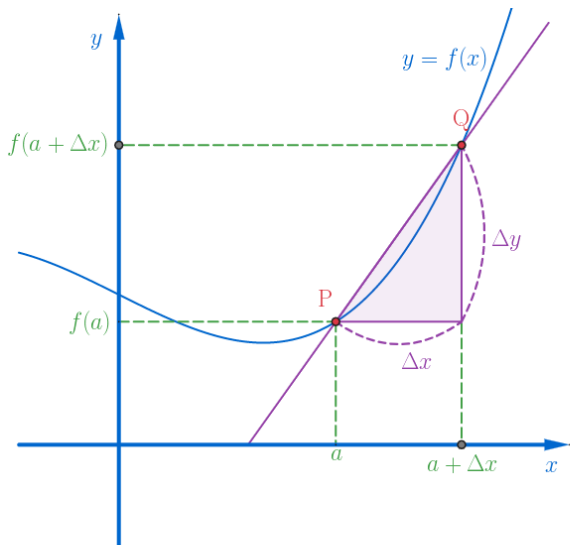
# Instantaneous rate of change



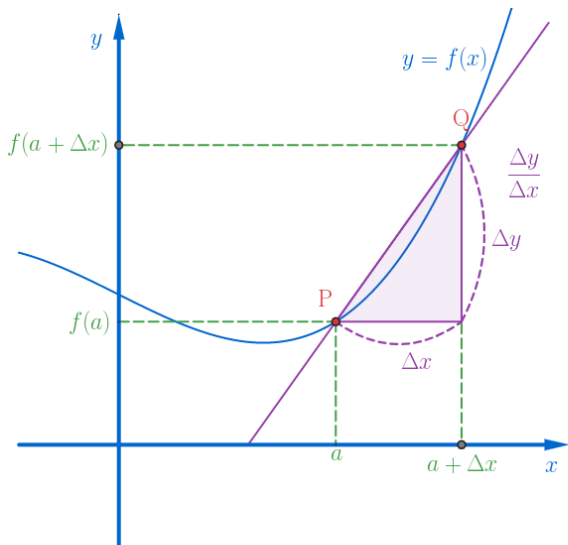
## Instantaneous rate of change



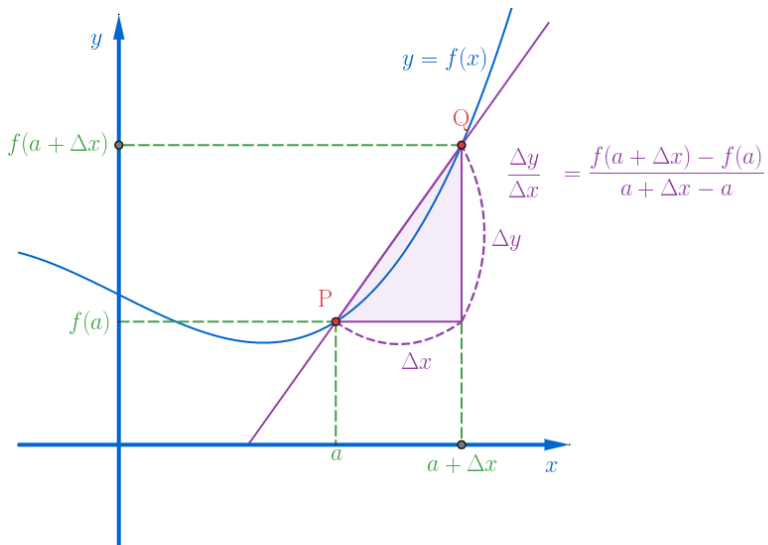
## Instantaneous rate of change



## Instantaneous rate of change

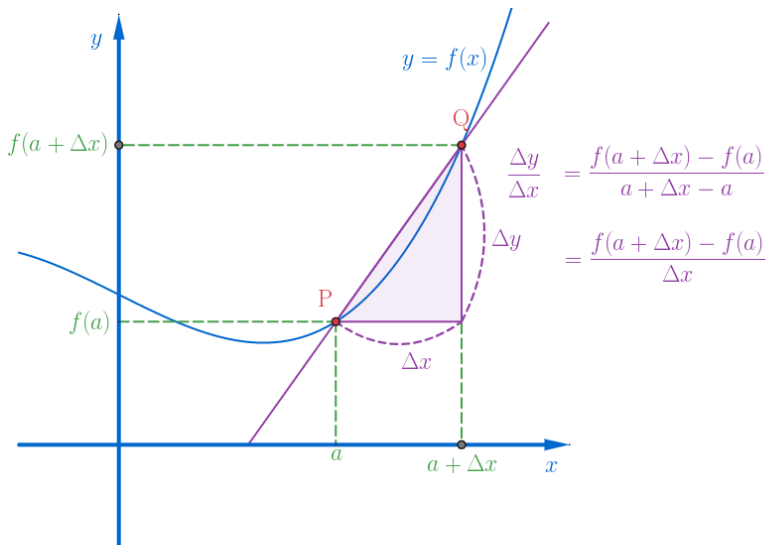


## Instantaneous rate of change

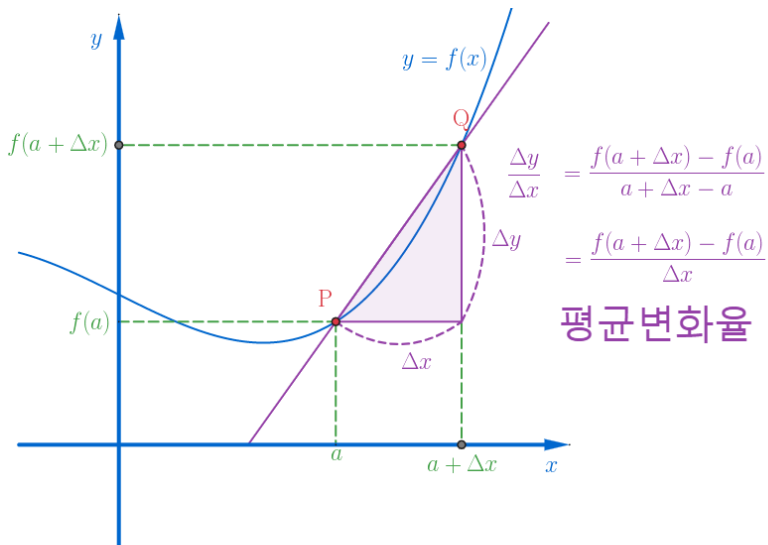




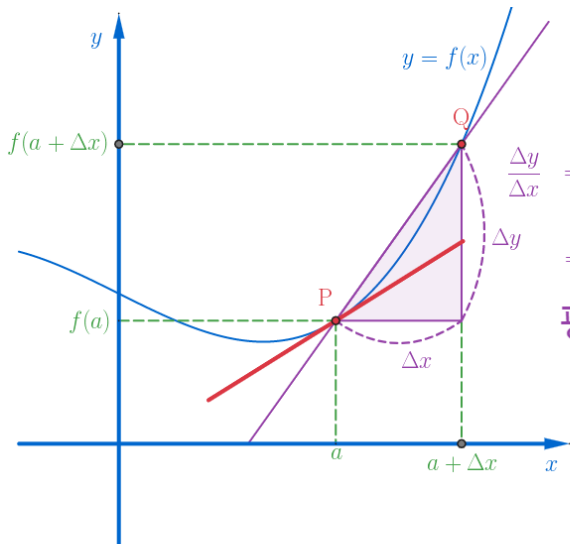
## Instantaneous rate of change



## Instantaneous rate of change



## Instantaneous rate of change

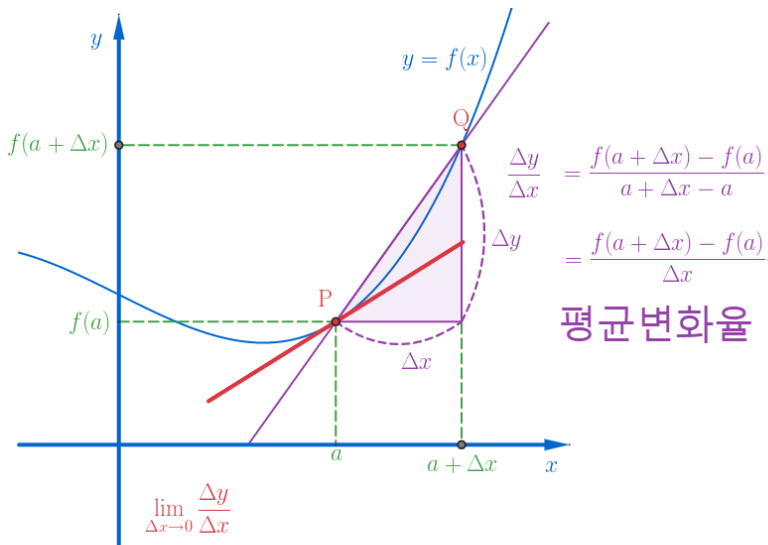


$$\frac{\Delta y}{\Delta x} = \frac{f(a + \Delta x) - f(a)}{a + \Delta x - a}$$

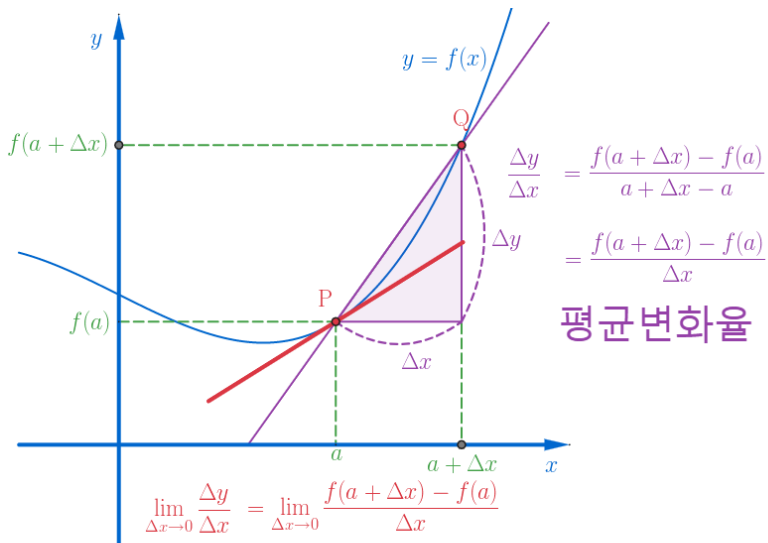
$$= \frac{f(a + \Delta x) - f(a)}{\Delta x}$$

평균변화율

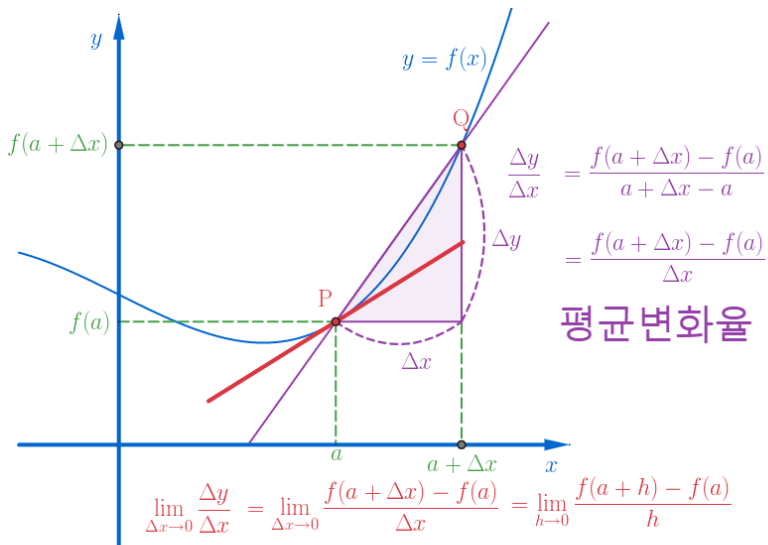
# Instantaneous rate of change



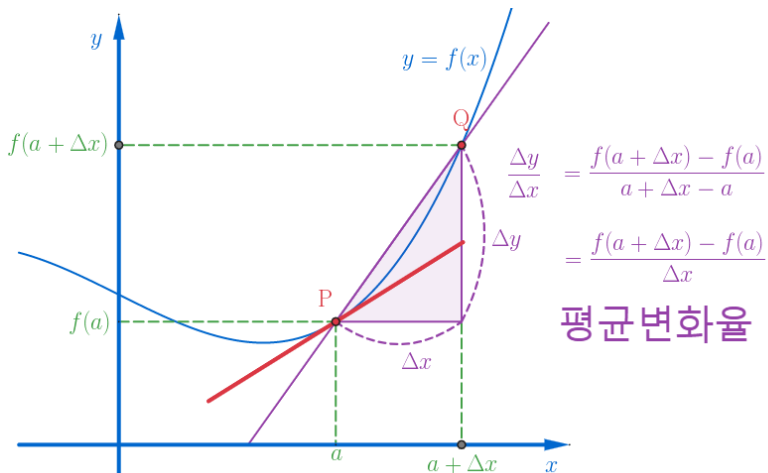
## Instantaneous rate of change



## Instantaneous rate of change

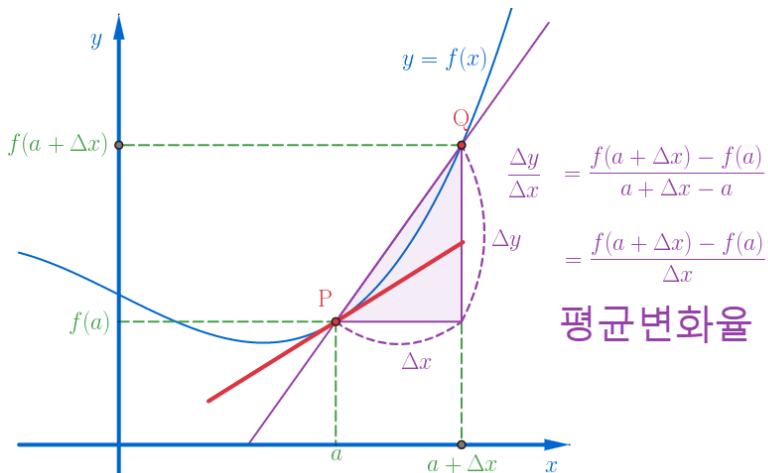


## Instantaneous rate of change



$$\lim_{\Delta x \rightarrow 0} \frac{\Delta y}{\Delta x} = \lim_{\Delta x \rightarrow 0} \frac{f(a + \Delta x) - f(a)}{\Delta x} = \lim_{h \rightarrow 0} \frac{f(a + h) - f(a)}{h}$$
$$= \lim_{x \rightarrow a} \frac{f(x) - f(a)}{x - a}$$

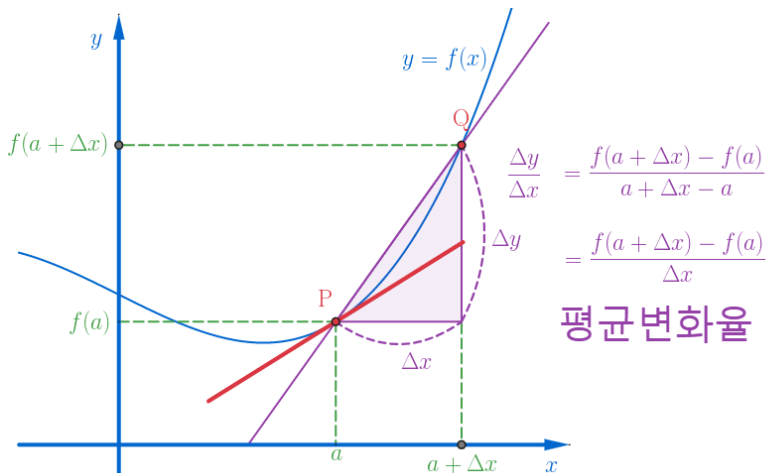
# Instantaneous rate of change



$$\lim_{\Delta x \rightarrow 0} \frac{\Delta y}{\Delta x} = \lim_{\Delta x \rightarrow 0} \frac{f(a + \Delta x) - f(a)}{\Delta x} = \lim_{h \rightarrow 0} \frac{f(a + h) - f(a)}{h}$$
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# Instantaneous rate of change

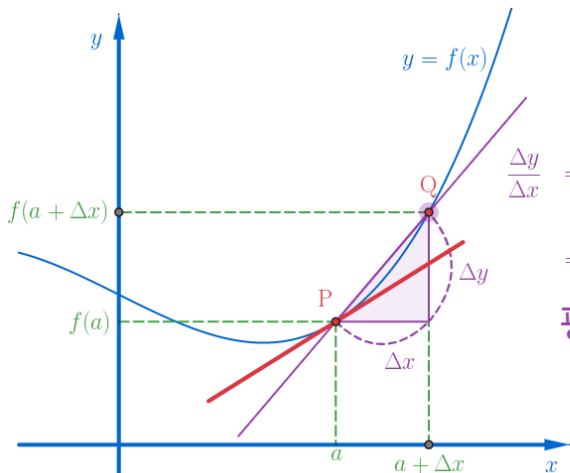


평균변화율

$$\lim_{\Delta x \rightarrow 0} \frac{\Delta y}{\Delta x} = \lim_{\Delta x \rightarrow 0} \frac{f(a + \Delta x) - f(a)}{\Delta x} = \lim_{h \rightarrow 0} \frac{f(a + h) - f(a)}{h}$$
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순간변화율

# Instantaneous rate of change



$$\frac{\Delta y}{\Delta x} = \frac{f(a + \Delta x) - f(a)}{a + \Delta x - a}$$

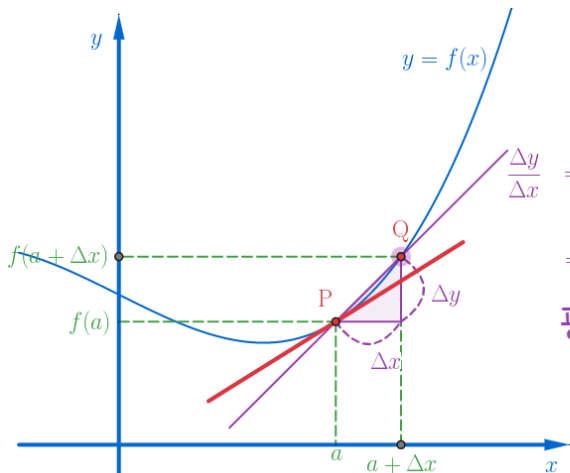
$$= \frac{f(a + \Delta x) - f(a)}{\Delta x}$$

평균변화율

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$$= \lim_{x \rightarrow a} \frac{f(x) - f(a)}{x - a} = \left[ \frac{dy}{dx} \right]_{x=a} = y'_{x=a} = f'(a) \quad \text{순간변화율}$$

# Instantaneous rate of change



$$\frac{\Delta y}{\Delta x} = \frac{f(a + \Delta x) - f(a)}{a + \Delta x - a}$$

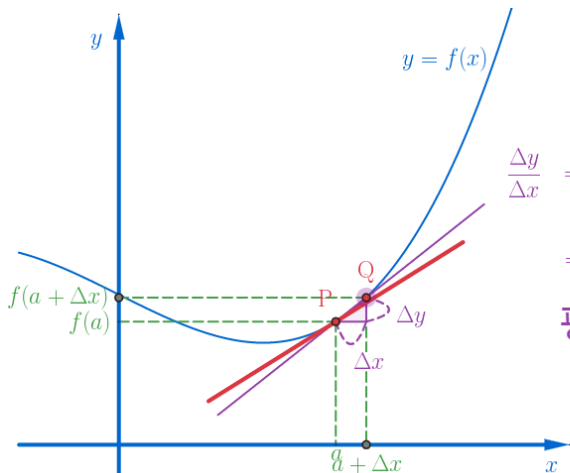
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평균변화율

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순간변화율

# Instantaneous rate of change



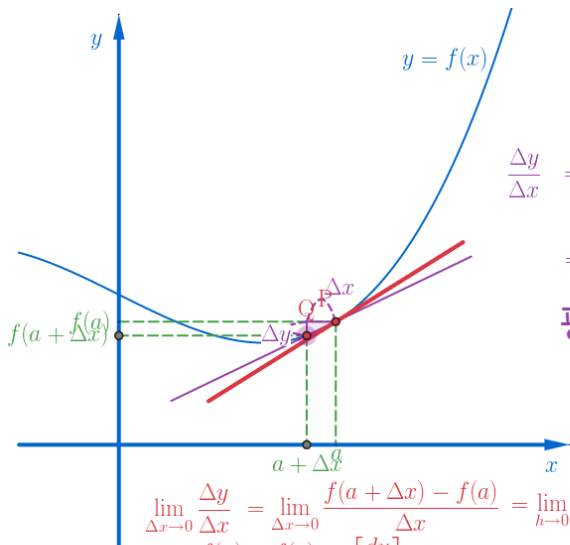
$$\frac{\Delta y}{\Delta x} = \frac{f(a + \Delta x) - f(a)}{a + \Delta x - a}$$

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평균변화율

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$$\frac{\Delta y}{\Delta x} = \frac{f(a + \Delta x) - f(a)}{a + \Delta x - a}$$

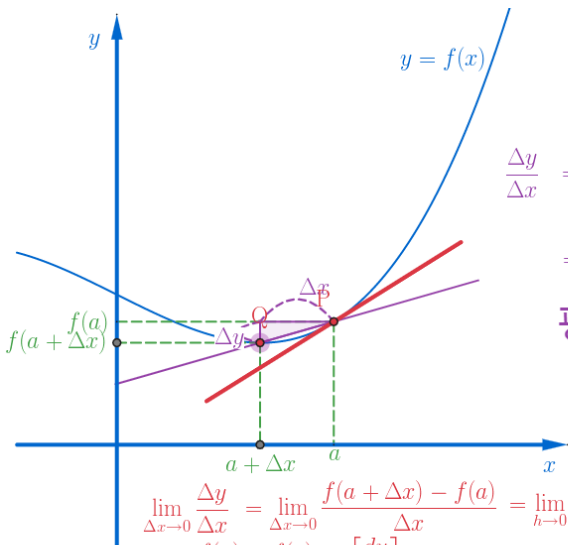
$$= \frac{f(a + \Delta x) - f(a)}{\Delta x}$$

평균변화율

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순간변화율



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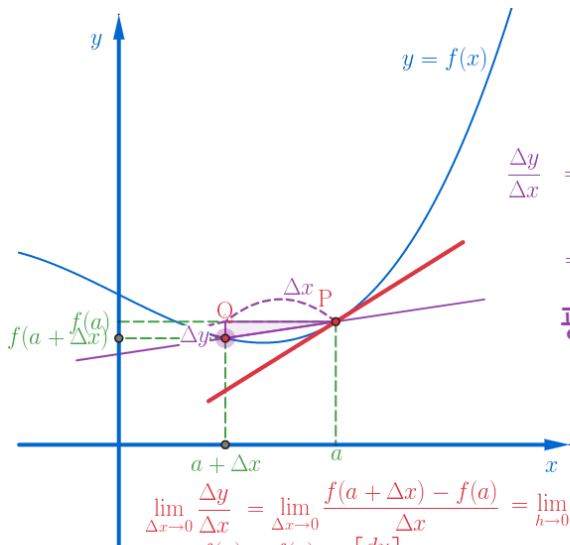
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평균변화율

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순간변화율

# Instantaneous rate of change



$$\frac{\Delta y}{\Delta x} = \frac{f(a + \Delta x) - f(a)}{a + \Delta x - a}$$

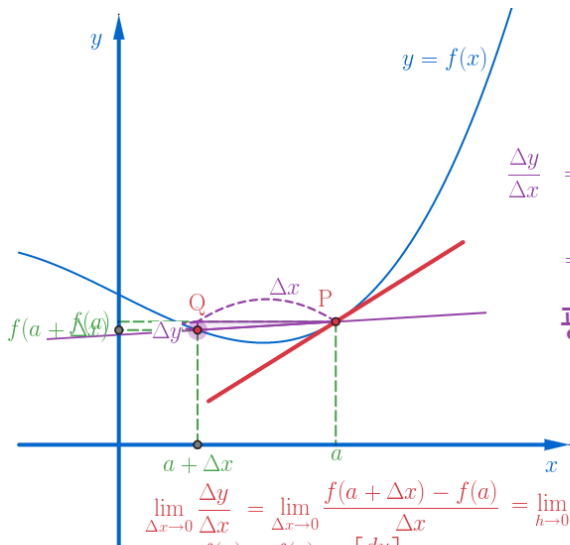
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순간변화율

# Instantaneous rate of change



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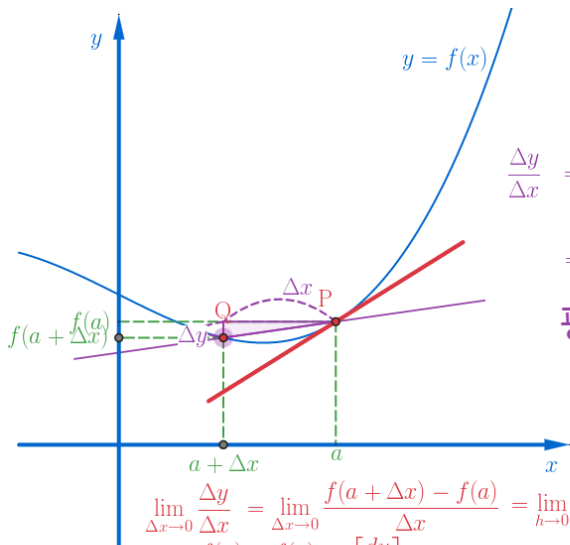
평균변화율

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순간변화율



# Instantaneous rate of change



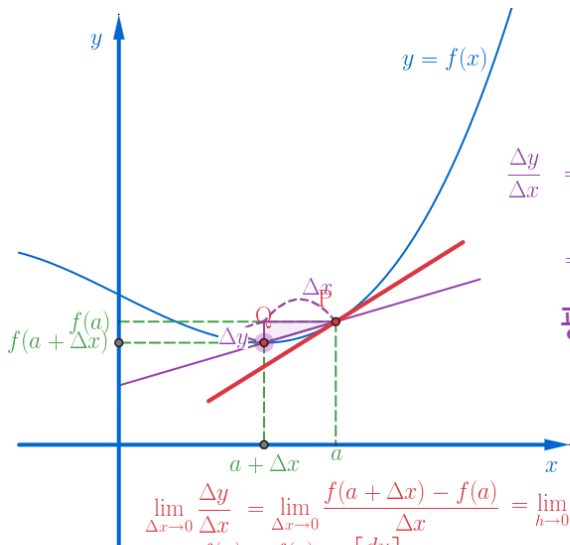
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순간변화율



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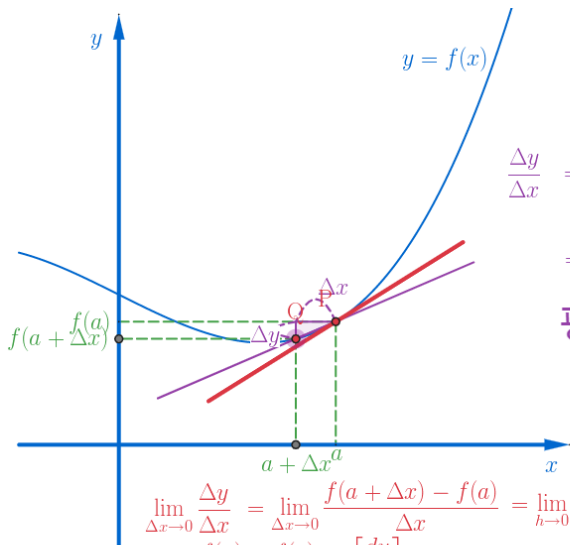
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평균변화율

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순간변화율

# Instantaneous rate of change



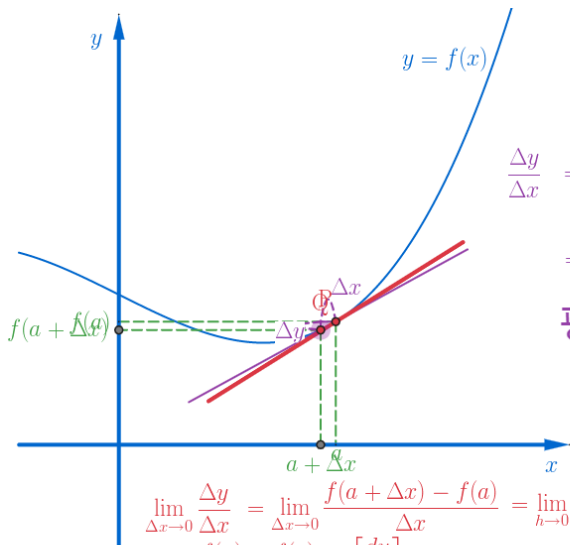
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평균변화율

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순간변화율



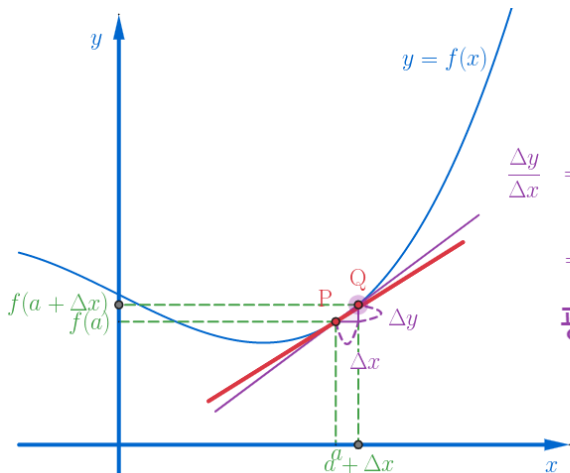
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순간변화율

# Instantaneous rate of change



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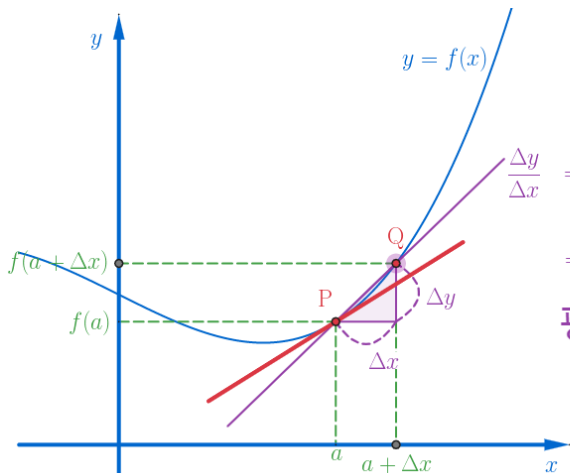
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평균변화율

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순간변화율

# Instantaneous rate of change



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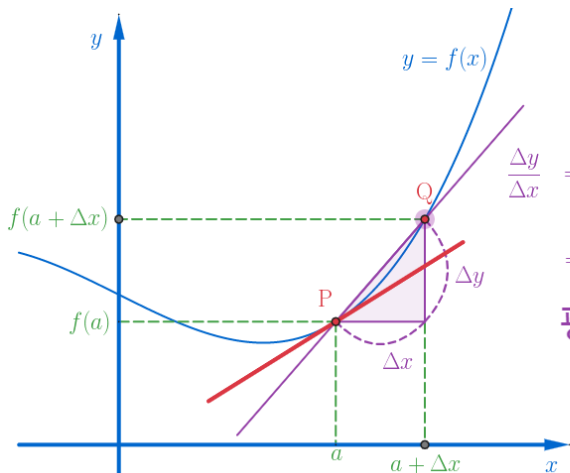
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순간변화율

# Instantaneous rate of change



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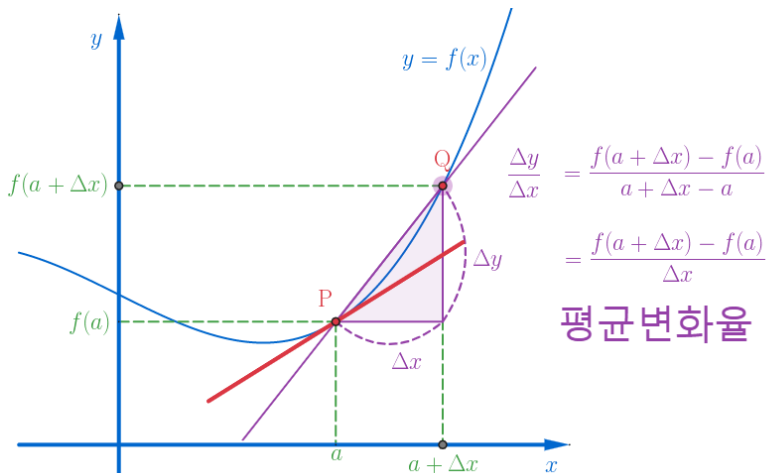
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평균변화율

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순간변화율

# Instantaneous rate of change



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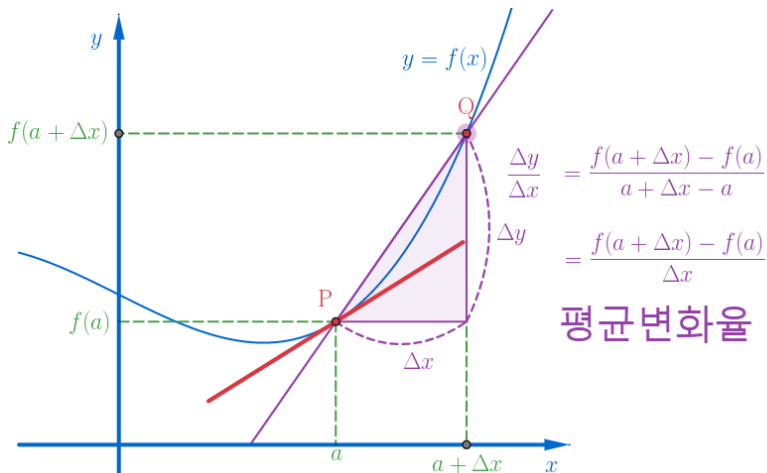
평균변화율

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순간변화율



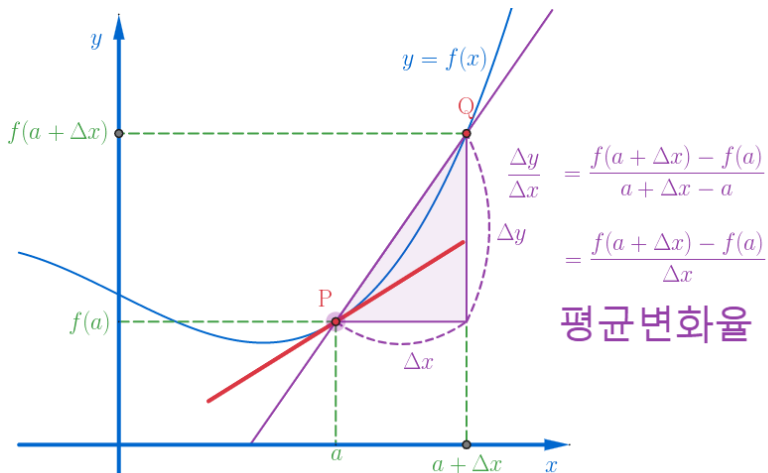
# Instantaneous rate of change



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순간변화율

# Instantaneous rate of change



평균변화율

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순간변화율

AlgegoMath: <http://me2.do/GSBXMQKk>

YouTube: <https://youtu.be/EsVpudGLNJU>

Click or paste URL into the URL search bar, and you can see a picture moving.