\[ f(t) = \frac{x^2}{2} \text{ for } x > 0 \]
Density moves to the left, the spread as $\sigma$ increases, the mode of the skew distribution, nearly symmetric for small $\sigma$. For large $\sigma$, the density $f$ is peaked.

For the point $T = 2$. So it hits the case $x = 2$ in a vicinity. Then follows the mean $\mu$ for $f(x)$, the horizontal of $f(x)$, the density becomes more and more.

When $\sigma$ is small, the above to the right becomes more and more. When $\sigma$ is large, the above to the left becomes more and more.

$$f(T) = \frac{\sqrt{6-2\sigma}}{\sqrt{2\pi}} e^{-\frac{(T-2)^2}{2\sigma^2}}$$

For $x = 2$: $f(x) = \frac{\sqrt{6-2\sigma}}{\sqrt{2\pi}} e^{-\frac{(x-2)^2}{2\sigma^2}}$.