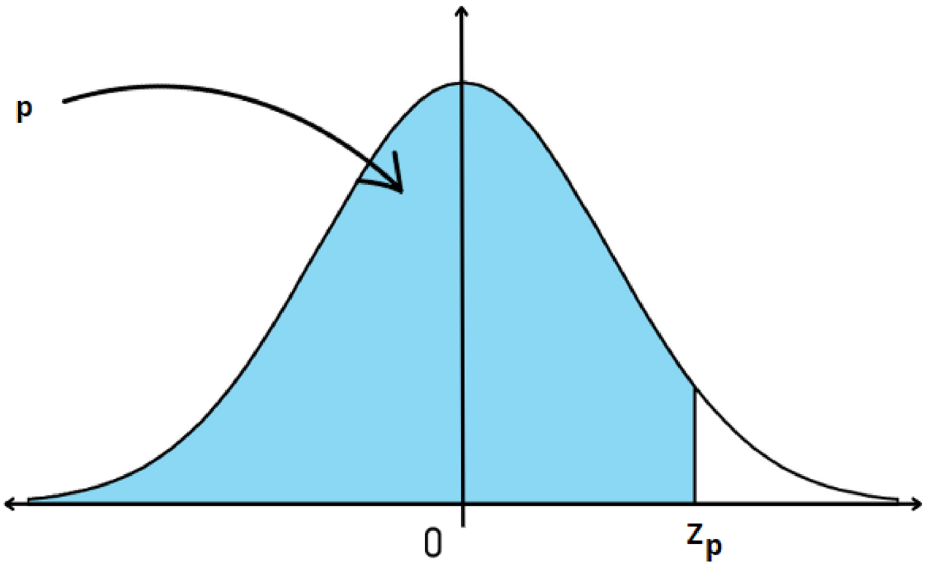
# Cuantiles de la Distribución Normal Estándar $N(0,1)$




**Función de Distribución Acumulativa** (**FDA**) utilizada para los cuantiles de la distribución normal estándar:

$$p = P\left(N(0,1) \leq z_p\right) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{z_p} e^{-x^2/2}\, dx$$

| $p$ | 0,00 | 0,01 | 0,02 | 0,03 | 0,04 | 0,05 | 0,06 | 0,07 | 0,08 | 0,09 |
|---|---|---|---|---|---|---|---|---|---|---|
| **0,5** | 0,00000 | 0,02507 | 0,05015 | 0,07527 | 0,10043 | 0,12566 | 0,15097 | 0,17637 | 0,20189 | 0,22754 |
| **0,6** | 0,25335 | 0,27932 | 0,30548 | 0,33185 | 0,35846 | 0,38532 | 0,41246 | 0,43991 | 0,46770 | 0,49585 |
| **0,7** | 0,52440 | 0,55338 | 0,58284 | 0,61281 | 0,64335 | 0,67449 | 0,70630 | 0,73885 | 0,77219 | 0,80642 |
| **0,8** | 0,84162 | 0,87790 | 0,91537 | 0,95416 | 0,99446 | 1,03643 | 1,08032 | 1,12639 | 1,17499 | 1,22653 |
| **0,9** | 1,28155 | 1,34076 | 1,40507 | 1,47579 | 1,55477 | 1,64485 | 1,75069 | 1,88079 | 2,05375 | 2,32635 |

**NOTAS:**

1. Para $0 < p < 0{,}5$ hágase $z_p = -z_{1-p}$
2. $Ejemplos$:

$$z_{0,95} = 1{,}64485$$
$$z_{0,01} = -z_{0,99} = -2{,}32635$$

# Cuantiles especiales de la Distribución Normal Estándar $N(0,1)$

| $p$ | $Z_p$ |
|---|---|
| **0,50** | 0,00000000 |
| **0,60** | 0,25334710 |
| **0,70** | 0,52440051 |
| **0,75** | 0,67448975 |
| **0,80** | 0,84162123 |
| **0,90** | 1,28155157 |

| $p$ | $Z_p$ |
|---|---|
| **0,95** | 1,64485363 |
| **0,975** | 1,95996398 |
| **0,99** | 2,32634787 |
| **0,995** | 2,57582930 |
| **0,999** | 3,09023231 |
| **0,9995** | 3,29052673 |

| $p$ | $Z_p$ |
|---|---|
| **0,9999** | 3,71901649 |
| **0,99995** | 3,89059189 |
| **0,99999** | 4,26489079 |
| **0,999995** | 4,41717341 |
| **0,999999** | 4,75342431 |
| **0,9999995** | 4,89163848 |

**NOTA:**

Para valores de $p$ comprendidos entre $0{,}5$ y $1$ $(0{,}5 \leq p < 1)$, puede utilizarse la fórmula aproximada:

$$z_p = t - \frac{c_0 + c_1 t + c_2 t^2}{1 + d_1 t + d_2 t^2 + d_3 t^3}$$

donde:

$$t = \sqrt{-2\ln(1-p)}$$

$$c_0 = 2.515517, \quad c_1 = 0.802853, \quad c_2 = 0.010328$$

$$d_1 = 1.432788, \quad d_2 = 0.189269, \quad d_3 = 0.001308$$

*(el error absoluto cometido no supera a* $0{,}00035$*)*