Intregable Funciones

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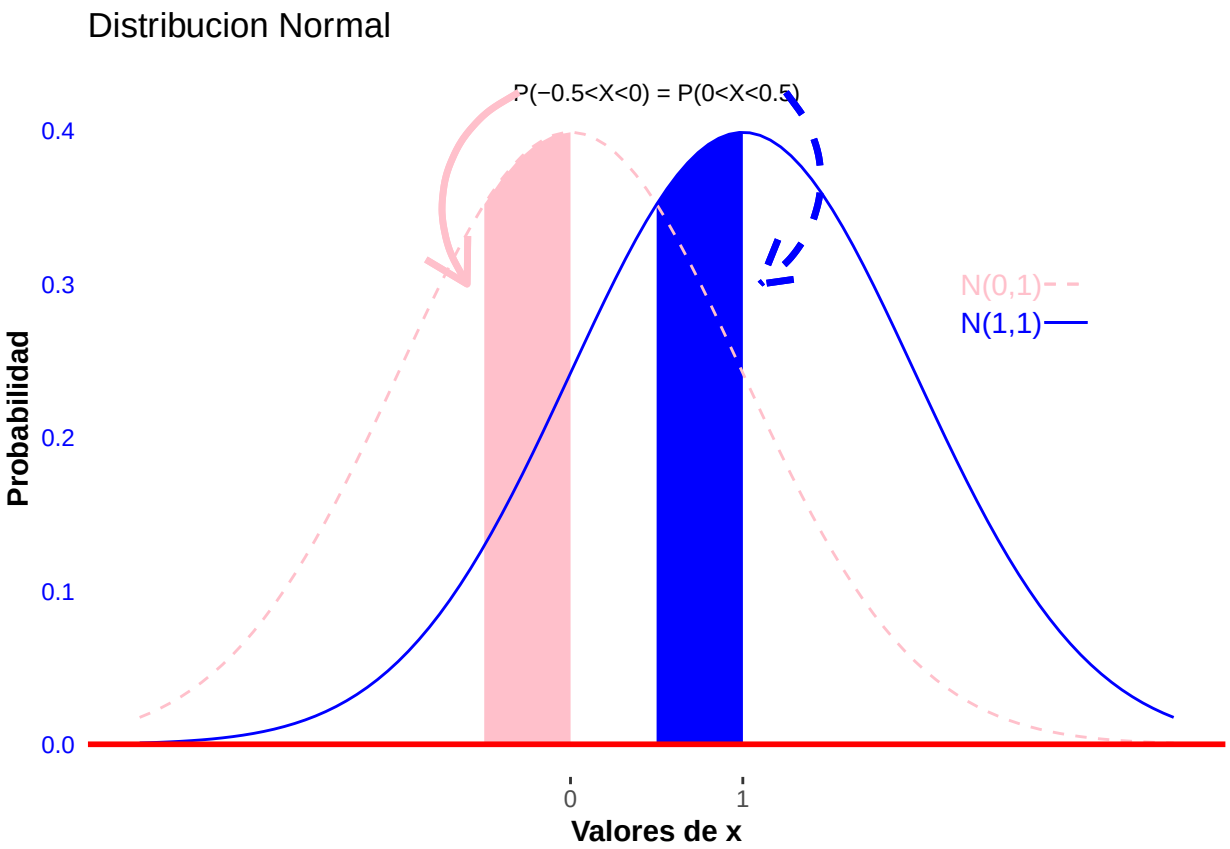
```
ggplot(data.frame(x = c(-2.5, 3.5)), aes(x = x)) +
  geom_area(data = data.frame(x = seq(0.5, 1,by=0.1)),
            aes(x = x, y = dnorm(x, mean = 1, sd = 1)),
            fill = "blue") +
  stat_function(fun = dnorm, args = list(mean = 0, sd = 1), color = "pink", lty="dashed") +
  geom_area(data = data.frame(x = seq(-0.5, 0, by=0.1)),
            aes(x = x, y = dnorm(x, mean = 0, sd = 1)),
            fill = "pink") +
  stat_function(fun = dnorm, args = list(mean = 1, sd = 1), color = "blue") +
  labs(title = "Distribucion Normal") +
  xlab("Valores de x") +
  ylab("Probabilidad") +
  theme(panel.border = element_blank(),
        panel.background = element_blank(),
        axis.title = element_text(face = "bold"),
        axis.text.y = element_text(color = "blue"),
        axis.ticks.y = element_blank()) +
  scale_x_continuous(breaks = c(0, 1)) +
  geom_hline(yintercept = 0,
             color = "red", lwd = 1, linetype = 1)+
  annotate("text", x=2.5, y = 0.3,
           label = "N(0,1)", color = "pink")+
  annotate("text", x=2.5, y=0.275,
           label = "N(1,1)", color ="blue")+
  geom_segment(x=2.75, xend=3, y=0.3, yend=0.3,
               color="pink", lty="dashed")+
  geom_segment(x=2.75, xend=3, y=0.275, yend=0.275,
               color="blue")+
  annotate("text",x=0.5, y=0.425, label = "P(-0.5<X<0) = P(0<X<0.5)", size=3)+
  geom_curve(x=-0.3, xend =-0.6, y = 0.425, yend=0.3,
             colour = "pink",size = 1.2, arrow = arrow(), curvature = 0.5)+
  geom_curve(x=1.25, xend =1.1, y = 0.425, yend=0.3,
             colour = "blue",size = 1.2, arrow = arrow(), curvature = -0.5, lty="dashed", lwy=2)
```


Distribucion Normal
P(−0.5<X<0) = P(0<X<0.5)
0.4
0.3
0.2
0.1
0.0
Probabilidad
N(0,1)
N(1,1)
0
1
Valores de x