Here are R commands to find probabilities and quantiles for the "named" distributions we have talked about (or will talk about).

DISCRETE: Binomial, geometric, negative binomial, hypergeometric, Poisson.

Distribution	$p_Y(y) = P(Y = y)$	$F_Y(y) = P(Y \leq y)$	ϕ_c
$Y \sim b(n, p)$	`dbinom(y,n,p)`	`pbinom(y,n,p)`	`qbinom(c,n,p)`
$Y \sim \text{geom}(p)$	`dgeom(y-1,p)`	`pgeom(y-1,p)`	`1+qgeom(c,p)`
$Y \sim \text{nib}(r, p)$	`dnbinom(y-r,r,p)`	`pnbinom(y-r,r,p)`	`r+qnbinom(c,r,p)`
$Y \sim \text{hyper}(N, n, r)$	`dhyper(y,r,N-r,n)`	`phyper(y,r,N-r,n)`	`qhyper(c,r,N-r,n)`
$Y \sim \text{Poisson}(\lambda)$	`dpois(y,`λ`)`	`ppois(y,`λ`)`	`qpois(c,`λ`)`

In discrete distributions, the cth quantile ϕ_c is defined as the smallest value satisfying $F_Y(\phi_c) = P(Y \leq \phi_c) \geq c$. Note that $0 < c < 1$.

CONTINUOUS: Uniform, normal, exponential, gamma, χ^2, beta, t, and F.

Distribution	$F_Y(y) = P(Y \leq y)$	ϕ_p
$Y \sim \mathcal{U}(\theta_1, \theta_2)$	`punif(y,`θ_1`,`θ_2`)`	`qunif(p,`θ_1`,`θ_2`)`
$Y \sim \mathcal{N}(\mu, \sigma^2)$	`pnorm(y,`μ`,`σ`)`	`qnorm(p,`μ`,`σ`)`
$Y \sim \text{exponential}(\beta)$	`pexp(y,`$1/\beta$`)`	`qexp(p,`$1/\beta$`)`
$Y \sim \text{gamma}(\alpha, \beta)$	`pgamma(y,`α`,`$1/\beta$`)`	`qgamma(p,`α`,`$1/\beta$`)`
$Y \sim \chi^2(\nu)$	`pchisq(y,`ν`)`	`qchisq(p,`ν`)`
$Y \sim \text{beta}(\alpha, \beta)$	`pbeta(y,`α`,`β`)`	`qbeta(p,`α`,`β`)`
$Y \sim t(\nu)$	`pt(y,`ν`)`	`qt(p,`ν`)`
$Y \sim F(\nu_1, \nu_2)$	`pf(y,`ν_1`,`ν_2`)`	`qf(p,`ν_1`,`ν_2`)`

In continuous distributions, the pth quantile ϕ_p satisfies $F_Y(\phi_p) = P(Y \leq \phi_p) = p$. Note that $0 < p < 1$. I used "c" above in the discrete distributions so as not to interfere with "p" in the binomial, geometric, and negative binomial distributions.