23.

a. Possible X values are those values at which F(x) jumps, and the probability of any particular value is the size of the jump at that value. Thus we have:

x	1	3	4	6	12
p(x)	.30	.10	.05	.15	.40

b. $P(3 \leq X \leq 6) = F(6) - F(3-) = .60 - .30 = .30$

$P(4 \leq X) = 1 - P(X < 4) = 1 - F(4-) = 1 - .40 = .60$