$X \sim Bin(15,\ 0.02)$

$P(X \leq 3) =$

Using information set C, determine the probability that two male students, chosen at random, have a mean mass less than 86 kg

$X \sim Bin(30,\ 0.5)$

$P(X \geq 12) =$

$L \sim N(20,\ \sigma^2)$

$P(L > 25) = 0.005$

$\sigma =$

Using information set C, determine the probability that a female student, chosen at random, has a mass less than 63 kg

$X \sim Bin(5,\ \frac{1}{3})$

$P(X \leq 1) =$

$E \sim N(14,\ 9)$

$P(E < e) = 0.75$

$e =$

$X \sim Bin(20,\ 0.32)$

$P(X = 8) =$

$I \sim N(10,\ \sigma^2)$

$P(I < 7) = 0.85$

$\sigma =$

$J \sim N(8,\ \sigma^2)$

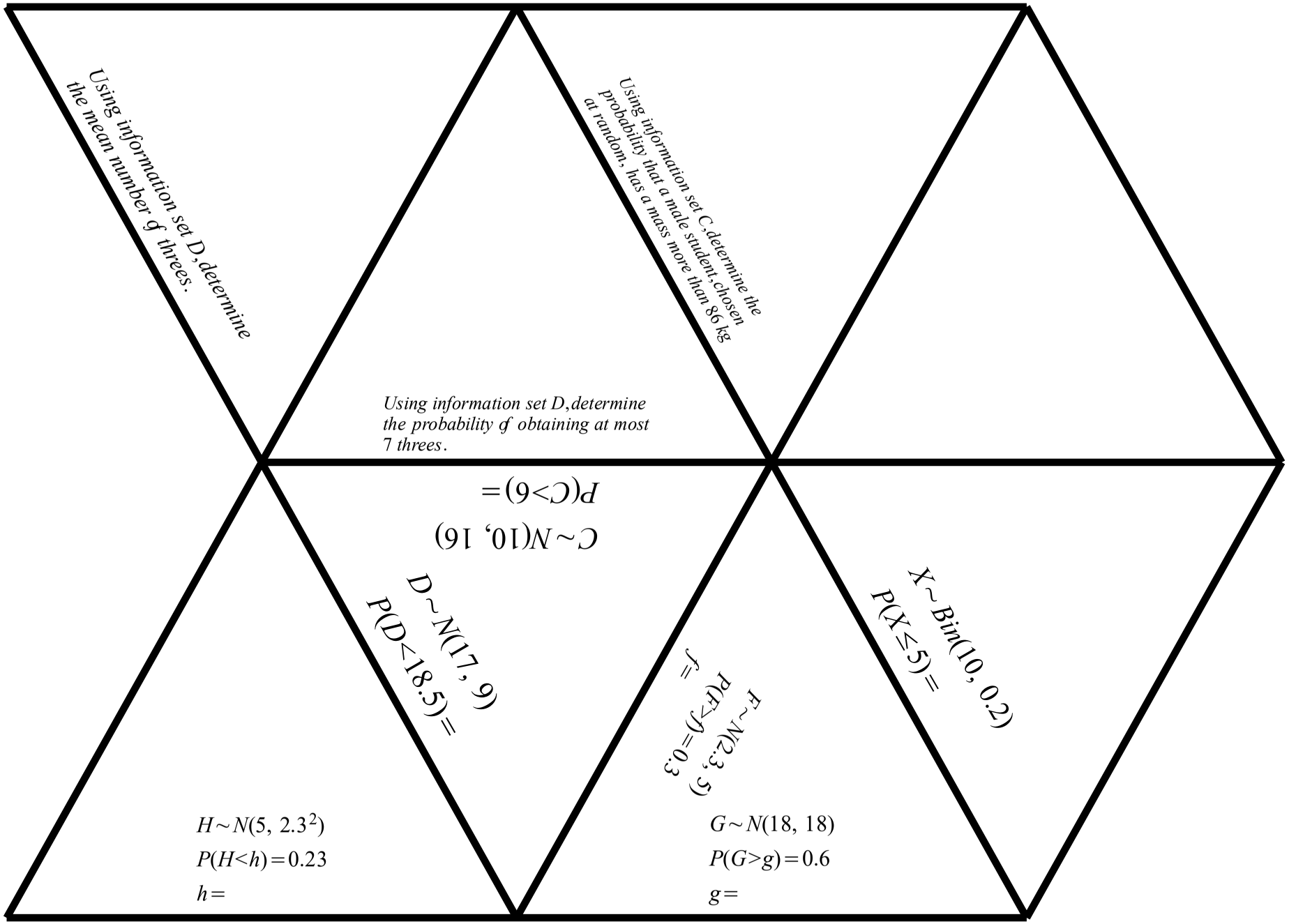
$P(J < 3) = 0.15$

$\sigma =$

$K \sim N(15,\ \sigma^2)$

$P(K < 17) = 0.9$

$\sigma =$



$X \sim Bin(40, 0.35)$

$P(X>10) =$

Using information set D, determine the probability of obtaining between 2 and 7 threes inclusive.

Using information set D, determine the probability of obtaining at least 7 threes.

$A \sim N(20, 25)$

$P(A>25) =$

$B \sim N(18, 9)$

$P(B<16.5) =$

Using information set C, determine the probability that two male student, chosen at random, both have a mass less than 86 kg

$X \sim Bin(20, 0.4)$. The probability that X is more than 5 and less than 10 is

Using information set C, determine the probability that two female students, chosen at random, both have a mass less than 63 kg

Using information set C, determine the probability that two female students, chosen at random, have a mean mass less than 63 kg

Using information set D, determine the standard deviation of the number of threes.

S1 All Topics Supplementary information

Data set 1:

In this set of data the numbers are ordered by size.
The median of the numbers is 19 and the mean is 19.

4, 8, b, 17, 17, a, 24, 26, 29, 33

Data set 2:

13, 17, 23, 22, 18, 16, 21, 20, 20, 15, 19

Data set 3:

x	14	15	16	17	18
f	5	6	7	8	9

Data set 4:

x	0 – 2	2 – 5	5 – 7	7 – 12	12 – 20
f	5	7	12	11	5

Data set 5: $\sum x = 200, \sum(x - \bar{x})^2 = 1764, n = 50$

Data set 6: $s_{xx} = 123, s_{yy} = 456, s_{xy} = 78.9$

Data set 7:

x	9	3	4	10	8	12	7	11	2	6
y	11	6	5	11	9	13	9	12	4	7

Information set A

A bag contains 16 cards, 5 of which are red, 2 are blue and the rest are green. Two cards are drawn at random from the bag.

Information set B

The table shows the age distribution of members of a youth club:

	11	12	13	
Girls	12	17	6	
Boys	5	13	9	

A member of the youth club is chosen at random.

D is the event "the member chosen is a girl"
E is the event "the member chosen is 11 years old"

Information set C

In a college, the mass, F, of female students is normally distributed with mean 70 kg and standard deviation 3.5 kg. The mass, M, of male students is normally distributed with mean 80 kg and standard deviation 4 kg.

Information set D

A die is biased so that the probability that it falls on a 3 is 0.2.
The die is thrown 15 times.