STAT 291 - Statistics for the Mathematical Sciences I

Calculating Expected Values

Suppose that a random variable has the pmf that follows.

x	-2	-1	0	1	2
$p(x)$	.2	.1	?	.3	.2

1. What is the missing probability?

2. Find $E(X)$

3. Find $E(X^2)$

4. Find $V(X)$

5. Find $E(X^3)$

6. Find $E(X^2 - 3X + 2)$

7. Find $E(e^X)$