



Expected Values - SOLUTIONS

1. 114.17
2. Yes
3.
 - i. Three point shots have a higher expected result.
 - ii. 82 points.

4. i.

Sum	2	3	4	5	6	7	8	9	10	11	12
Probability	$\frac{1}{36}$	$\frac{2}{36}$	$\frac{3}{36}$	$\frac{4}{36}$	$\frac{5}{36}$	$\frac{6}{36}$	$\frac{5}{36}$	$\frac{4}{36}$	$\frac{3}{36}$	$\frac{2}{36}$	$\frac{1}{36}$

- ii. $E(X) = 7$
5. $x = 0.05$ and $y = 0.5$

6. i.

Number of family members	2	3	4	5	6	7
Probability	$\frac{1}{35}$	$\frac{4}{35}$	$\frac{9}{35}$	$\frac{12}{35}$	$\frac{6}{35}$	$\frac{3}{35}$

- ii. $E(X) = 4.77$
7.
 - i. 0.101
 - ii. 0.086
 - iii. €616.91
 - iv. €520.39
 - v. €1071.09, €503.61
 - vi. €448

