

PROBABILITY: EXPECTED VALUE [PIRNOT 13.4]

EX 13.4.1: Given the following table of the probabilities & values associated with the four outcomes of an experiment:

| OUTCOME | PROBABILITY | VALUE |
|----------|-------------|-------|
| <i>A</i> | 0.25 | 7 |
| <i>B</i> | 0.10 | -3 |
| <i>C</i> | 0.35 | 2 |
| <i>D</i> | 0.30 | -2 |

Compute the expected value for the experiment.

EX 13.4.2: You pay \$1.00 to play a game in which a pair of fair dice are rolled.

If the dice total six or twelve, you win \$4.00.

If the dice total between six or twelve exclusive, you win \$2.00.

Otherwise, you lose the dollar you paid to play the game.

(a) Compute the expected value for the game.

(b) Compute the price of the game to make the game fair.