**Brad’s Beefcakes**

Bradley runs a small chain of sports equipment stores in Colorado; Brad’s Beefcakes. He is considering sponsoring the upcoming Denver’s Strongest Man Contest and has been given 2 options by the organisers. He can either sponsor the event, at a cost of $10,000, or he can sponsor a team at a cost of $2000

If media interest is high when choosing to sponsor a team or the whole event, Bradley will also have the option to fund additional sponsorship at a cost of $1500.

With little media interest, the probability of Bradley having excellent sales figures is 0.4, good sales figures is 0.3 and average sales figures is 0.3.

With high media interest, the probabilities become 0.5 for excellent sales, 0.3 for good sales and 0.2 for average sales. Additional sponsorship would increase the probability of excellent sales by 0.1 and reduce the probability of average sales by the same amount.

The chance of getting high media interest via sponsoring the whole event is 0.6 whereas by sponsoring a team the probability is 0.5.

The potential returns are shown below:

|  |  |
| --- | --- |
| Level of Sales | Revenue Generated |
| Average | 12000 |
| Good | 18000 |
| Excellent | 30000 |

Alternatively, Bradley can choose not to sponsor anything and can simply provide targeted discounts to competitors and spectators with the aim of finding new customers. The cost of this would be $4000 in lost earnings and advertising the discounts. His chances of achieving excellent sales are 0.2, good sales would be 0.3 and average sales would be 0.5.

As the event takes place outdoors, the threat of bad weather is also an issue for Brad to consider. His revenue is likely to be reduced by 10% if it rains as less potential customers will be in attendance. The probability of rain is 0.15 on the day of the event.