ML8 Chapter 11 Problems of the Week Answers

BLM 11—4 Chapter 11 Problems of the Week
1.
$P = \dfrac{\text{area of beanbag}}{\text{area of large circle}}$; $P = \dfrac{19.625}{70650}$; $P = \dfrac{1}{3600}$.

Answers will vary. Example: With a 1 : 3600 chance, you are not likely to use this rule.
2. a) Answers will vary. Examples:
• The probability that a card with a value greater than five will be chosen is 0.50.
• Half the cards have a value greater than five.

b) Answers will vary. Example: 0.26 or $\dfrac{13}{50}$ have

a value greater than seven.
3. 3 turns; $6 \times 6 = 36$, $6 \times 6 = 36$, and $5 \times 6 = 30$; $36 + 36 + 30 = 102$. The least number of rolls needed to score 102 is three.
4. The possible answers are 47, 49, 61, 63, 65, 67, 69, 81, 83, 85, 87, and 89. The probability you will guess correctly on the first guess is $\dfrac{1}{12}$.

5. Possible number of spins: $6 \times 6 = 36$;
Favourable outcomes: $\dfrac{10}{36}$ or $\dfrac{5}{18}$

	1	2	3	4	5	6
1	1, 1	2, 1	3, 1	4, 1	5, 1	6, 1
2	1, 2	2, 2	3, 2	4, 2	5, 2	6, 2
3	1, 3	2, 3	3, 3	4, 3	5, 3	6, 3
4	1, 4	2, 4	3, 4	4, 4	5, 4	6, 4
5	1, 5	2, 5	3, 5	4, 5	5, 5	6, 5
6	1, 6	2, 6	3, 6	4, 6	5, 6	6, 6

6. a) Answers will vary. Example: 70% chance of rain means that it will rain on seven out of ten days, or 0.7 days, with the same conditions in the atmosphere.
b) The probability that it will rain on both days is
$\dfrac{3}{10} \times \dfrac{7}{10} = \dfrac{21}{100}$, 0.21, or 21%.
c) Answers will vary.