Activity 4.6.2: Counting the Outcomes of Experiments

Total points = 15

A. Answers
1. Possible outcomes $= 2 \times 5 = 10$ ✓
2. Possible outcomes $= 3 \times 3 = 9$ ✓
3. Possible outcomes $= 2 \times 2 \times 2 = 8$ ✓
4. Possible outcomes $= 2 \times 6 = 12$ ✓
5. Possible outcomes $= 4 \times 2 = 8$ ✓

B. Answers
1. Possible combinations $= 4 \times 2 \times 8 = 64$ ✓
2. Possible ways $= 5 \times 4 \times 3 \times 2 \times 1 = 120$ ✓
3. Possible outfits $= 4 \times 3 \times 2 = 24$ ✓
4. Possible combinations $= 2 \times 4 \times 7 = 56$ ✓
5. Motorcycle license plates
   5.1 No. of license plates $= 26 \times 26 \times 10 \times 10 \times 10 \times 10 =$ ✓
   5.2 No. of license plates $= 26 \times 25 \times 10 \times 9 \times 8 \times 7 =$ ✓
6. Possible numbers $= 9 \times 10 \times 10 \times 10 \times 10 = 90,000$ ✓
7. Possible numbers $= 4 \times 4 \times 3 \times 2 \times 1 = 96$ ✓
8. Number of ways $= 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 720$ ✓
9. Number of ways $= 4 \times 3 \times 2 \times 1 = 24$ ✓