Year 8 Probability – Challenge

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Year 8 · Maths · Probability · Level 3 Challenge · 8 questions

Name _____ **Date** _____

A. Think like a mathematician

1. The probability that a train is late is 0.3. Ivo says the probability that it is not late is 0.8. Explain the mistake and find the correct probability.

Answer _____

2. Two fair dice are rolled. Eli says P(total of 6) = 1/11, because there are 11 possible totals from 2 to 12. Explain the mistake and find the correct probability.

Answer _____

3. Amir says if P(A) = 0.3 then P(not A) = 0.7. Is Amir right? Explain.

Answer _____

4. Bella says when two dice are rolled, a total of 7 is the most likely total. Is Bella right? Explain.

Answer _____

5. Lina says flipping a coin and rolling a dice gives 8 possible outcomes. Is Lina right? Explain.

Answer _____

6. A coin is flipped 100 times and lands on heads 55 times. Compare the experimental probability of heads with the theoretical probability.

Answer _____

7. A fair coin is flipped and a fair six-sided dice is rolled. What is the probability of getting heads and a number less than three? Give your answer as a fraction in its simplest form.

Answer _____

8. Two fair six-sided dice are rolled. Use a sample space diagram to find the probability that the total is 3. Give your answer as a fraction in its simplest form.

Answer _____