1. A die is rolled and a coin is tossed. What is the probability of getting a number less than 4 on the die and heads on the coin?

2. Simplify

$$(x+y)^0$$

3. Simplify

$$(x+y)^1$$

4. Multiply and simplify

$$(x+y)^2$$

5. Multiply and simplify

$$(x+y)^3$$

6. Multiply and simplify

$$(x+y)^4$$

7. Multiply and simplify

$$(x+y)^5$$