Worksheet 47: Listing Possible Outcomes

Name: _____ **Date:** _____

Score: _____

> **Section 1: Fluency** (Questions 1–10)
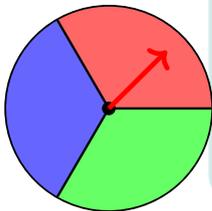
Question 1:
Look at this die. List **all the possible numbers** you can roll.

Answer: _____

Question 2:
Look at this spinner. List **all the colours** you could spin.

Answer: _____

Question 3:
If you flip a coin, what are the **two possible outcomes**?
Answer: _____

Question 4:
A spinner has 4 equal sections: Yellow, Orange, Purple, Pink. List all possible outcomes.
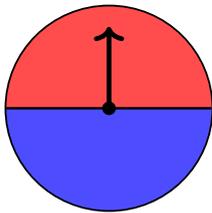Answer: _____

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Question 5:

You have a bag with numbered balls: 1, 2, 3, 4, 5. If you pick one ball, what are the possible numbers?

Answer: _____

Question 6:

Look at this spinner. What colours could it land on?

Answer: _____

Question 7:

Emma has a deck with 4 cards: Ace, King, Queen, Jack. She picks one card. What are the possible outcomes?

Answer: _____

Question 8:

A traffic light can show three colours. What are they?

Answer: _____

Question 9:

Tom rolls a normal 6-sided die. Can he roll a 7? Why or why not?

Answer: _____
_____

Question 10:

A bag contains 3 shapes: Triangle, Circle, Square. If you pick one, what are the possible

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outcomes?
Answer: _____

Good Job!

Why don't dice ever get lost? Because they always know which side they're on!

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Section 2: Reasoning (Questions 11–20)

Question 11:
True or False: If I flip a coin, I can get a Head or a Tail.
Answer: _____

Question 12:
True or False: If I roll a normal die, I can get a 7.
Answer: _____

Question 13:
True or False: A spinner with Red, Blue, and Green can land on Yellow.
Answer: _____

Question 14:
Sarah says: "When I pick a marble from a bag of Red and Blue marbles, I might get a Green marble." Is she correct?
Answer: _____
Explain: _____

Question 15:
A die shows numbers 1 to 6. Jake says he rolled a 0. Is this possible?
Answer: _____

Question 16:
A bag contains only Red balls. Emma picks one ball. What colour will it be?
Answer: _____

Question 17:

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Tom spins a spinner with 4 sections: North, South, East, West. Can it land on "Up"?
Answer: _____

Question 18:
A coin has two sides: Heads and Tails. How many possible outcomes are there when you flip it?
Answer: _____

Question 19:
Lisa has cards numbered 5, 6, 7, 8. She picks one card. Could she pick the number 3?
Answer: _____
Why? _____

Question 20:
A spinner has 5 equal sections: Monday, Tuesday, Wednesday, Thursday, Friday. List all possible days it could land on.
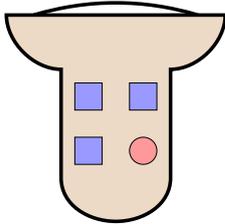Answer: _____
_____

Good Job!

What's a mathematician's favourite type of luck? Probability!

Section 3: Challenge (Questions 21–30)

Question 21:
Look at the shapes in this bag. If you pull out one shape, what are the possible outcomes?

Answer: _____

Question 22:
A bag has 5 Green marbles and 1 Yellow marble. What are the two possible colour outcomes?
Answer: _____

Question 23:
Tom has a spinner with Red, Red, Red, Blue. He spins it once. What are the possible colours?
Answer: _____

Question 24:
Emma picks a card from a deck of: 2, 4, 6, 8, 10. Are all the outcomes even numbers?
Answer: _____

Question 25:
A bag contains letters: A, B, C, D, E. You pick one letter. How many possible outcomes are there?
Answer: _____

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Question 26:

Design your own spinner with 3 colours. Draw it and list the possible outcomes.

Possible outcomes: _____

Question 27:

A mystery box contains: Star, Heart, Diamond. You reach in and pick one. What could you get?

Answer: _____

Question 28:

Jake rolls two dice. List all possible outcomes for **one** die.

Answer: _____

Question 29:

A bag has Red, Red, Blue, Blue, Green. If you pick one marble, what are the possible colours?

Answer: _____

Question 30:

Create your own "outcome" question. Draw a container with items and ask: "What are the possible outcomes?"

Good Job!

Why did the marble never get picked? It was always out of the bag!

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Answer Key
Worksheet 47: Listing Possible Outcomes

Question 1:
1, 2, 3, 4, 5, 6
Question 2:
Red, Blue, Green
Question 3:
Heads, Tails
Question 4:
Yellow, Orange, Purple, Pink
Question 5:
1, 2, 3, 4, 5
Question 6:
Red, Blue
Question 7:
Ace, King, Queen, Jack
Question 8:
Red, Yellow (Amber), Green
Question 9:
No; a standard die only has 1-6
Question 10:
Triangle, Circle, Square
Question 11:
True
Question 12:
False
Question 13:
False
Question 14:
No; Green is not in the bag
Question 15:
No

Question 16:
Red
Question 17:
No
Question 18:
2 outcomes
Question 19:
No; 3 is not in the cards
Question 20:
Monday, Tuesday, Wednesday, Thursday, Friday
Question 21:
Square, Circle
Question 22:
Green, Yellow
Question 23:
Red, Blue
Question 24:
Yes
Question 25:
5 outcomes
Question 26:
Check drawing and list
Question 27:
Star, Heart, Diamond
Question 28:
1, 2, 3, 4, 5, 6
Question 29:
Red, Blue, Green
Question 30:
Check student's creative question

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Worksheet 48: The Language of Chance

Name: _____ **Date:** _____

Score: _____

> **Section 1: Fluency** (Questions 1–10)

Question 1:
Look at the probability scale below.

Where would you place this event: **"The sun will rise tomorrow."**
Answer: _____

Question 2:
Where would you place this event: **"You will grow wings and fly today."**
Answer: _____

Question 3:
Circle the correct word: Flipping a coin and getting Heads is **(Impossible / Unlikely / Equal Chance / Likely / Certain)**.
Answer: _____

Question 4:
It will snow in the Australian desert in summer. This is **(Impossible / Unlikely / Likely / Certain)**.
Answer: _____

Question 5:
You will eat food today. This is **(Impossible / Unlikely / Likely / Certain)**.
Answer: _____

Question 6:

Rolling a 7 on a normal die is **(Impossible / Unlikely / Certain)**.

Answer: _____

Question 7:

Tomorrow will be Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, or Sunday. This is **(Unlikely / Certain / Equal Chance)**.

Answer: _____

Question 8:

A bag has 10 Red marbles and 1 Blue marble. Picking a Red marble is **(Impossible / Unlikely / Likely / Certain)**.

Answer: _____

Question 9:

Picking a Green marble from a bag of only Red marbles is **(Impossible / Unlikely / Likely)**.

Answer: _____

Question 10:

A spinner is half Red and half Blue. Landing on Red is **(Impossible / Equal Chance / Certain)**.
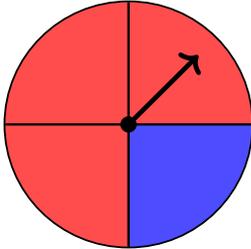
Answer: _____

Good Job!

What are the chances of a cow flying? Udderly impossible!

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Section 2: Reasoning (Questions 11–20)

Question 11:
Look at this spinner. Is it more likely to land on Red or Blue? Why?

Answer: _____

Why: _____

_____

Question 12:
A bag has 8 Green balls and 2 Yellow balls. Which colour are you more likely to pick?
Answer: _____

Question 13:
Tom has a spinner with 5 Blue sections and 1 Red section. Is landing on Blue **Likely** or **Unlikely**?
Answer: _____

Question 14:
Emma says: "It's certain I will roll a 6 on my next die roll." Is she correct?
Answer: _____
Explain: _____

Question 15:
A jar has 1 Red marble, 1 Blue marble, and 1 Green marble. Picking Blue has an **Equal Chance** compared to picking which other colours?
Answer: _____

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Question 16:

It will rain chocolate tomorrow. Is this **Impossible** or **Unlikely**?

Answer: _____

Question 17:

You flip a coin. Getting Heads or Tails is **(Certain / Likely / Equal Chance)**.

Answer: _____

Question 18:

Sarah has a bag with 20 Red marbles. She picks one. Getting Red is **(Likely / Certain / Impossible)**.

Answer: _____

Question 19:

A spinner has 10 sections: 9 are Yellow, 1 is Purple. Landing on Purple is **(Likely / Unlikely / Impossible)**.

Answer: _____

Question 20:

Jake says: "The chance of picking a triangle from a bag of only circles is Unlikely." Is he correct? Why or why not?

Answer: _____

_____

Good Job!

Why did the probability go to the doctor? It wasn't feeling likely!

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Section 3: Challenge (Questions 21–30)

Question 21:
Draw a spinner where landing on Green is **Unlikely** but landing on Yellow is **Likely**.

_____

Question 22:
Design a bag of marbles where picking Blue is **Certain**.
What's in your bag? _____

_____

Question 23:
Create a spinner with 4 sections where landing on any colour has an **Equal Chance**.

_____

Question 24:
Emma has 6 cards: 5 Hearts and 1 Spade. Is picking a Heart **Likely** or **Certain**?
Answer: _____
Explain: _____

_____

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Question 25:
Tom says: "I have a bag where picking Red is Impossible." What must be true about his bag?
Answer: _____
_____

Question 26:
Describe a real-life event that is **Certain**.
Answer: _____
_____

Question 27:
Describe a real-life event that is **Impossible**.
Answer: _____
_____

Question 28:
A bag has 3 Red, 3 Blue, and 3 Green marbles. Picking any colour has **(Equal Chance / Likely / Certain)**.
Answer: _____

Question 29:
Design a spinner where one colour is **Impossible** to land on.

How did you do it? _____
_____

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Question 30:

Write your own probability question using the words: **Likely, Unlikely, or Equal Chance**.

Question: _____

_____

Answer: _____

Good Job!

Why was the spinner so good at making decisions? It always knew which way to turn!

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Answer Key
Worksheet 48: The Language of Chance

Question 1:
Certain
Question 2:
Impossible
Question 3:
Equal Chance
Question 4:
Impossible (or Unlikely)
Question 5:
Likely (or Certain)
Question 6:
Impossible
Question 7:
Certain
Question 8:
Likely
Question 9:
Impossible
Question 10:
Equal Chance
Question 11:
Red; There are more Red sections (3) than Blue (1)
Question 12:
Green
Question 13:
Likely
Question 14:
No; It's possible but not certain
Question 15:
Red and Green (all equal)

Question 16:
Impossible
Question 17:
Certain (you will get one of them)
Question 18:
Certain
Question 19:
Unlikely
Question 20:
No; It should be Impossible (no triangles in bag)
Question 21:
Check drawing: Many Yellow sections, few Green
Question 22:
Only Blue marbles
Question 23:
Check drawing: 4 equal sections
Question 24:
Likely; Most cards are Hearts but not all
Question 25:
The bag has no Red marbles
Question 26:
Examples: Night will follow day; You will get older
Question 27:
Examples: A dog speaking English; Time going backwards
Question 28:
Equal Chance
Question 29:
Don't include that colour on the spinner
Question 30:
Check student's creative question and answer

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