



Probability as a number from 0 to 1

GRADE 7 MATH

Name _____

Date _____

Do this on your own — the worked example shows what to do. Fractions in lowest terms. Same bag: 3 red, 5 blue, 2 green. One skill: **the probability scale**.

WORKED EXAMPLE

$P(\text{event}) = \text{favourable} \div \text{total}$, a number from 0 to 1. 0 is impossible, 1 is certain. $P(A) + P(\text{not } A) = 1$. Two possible outcomes does not mean even chances.

1. Find $P(\text{blue})$.

FLUENCY

Show your thinking

Answer

2. Find $P(\text{not blue})$.

FLUENCY

Show your thinking

Answer

3. Blue happens to be exactly even. Explain why, using the counts.

REASONING

Show your thinking

Answer

4. Find $P(\text{red or blue})$.

APPLICATION

Show your thinking

Answer

5. Show that your answer to question 4 equals $P(\text{not green})$, and explain why it must.

REASONING

Show your thinking

Answer

6. Place these on a 0 to 1 scale, in order: $P(\text{green})$, $P(\text{red})$, $P(\text{blue})$, $P(\text{not green})$.

Show your thinking

Answer

7. A student writes $P(\text{red}) = 3$ and $P(\text{blue}) = 5$. Explain both what is wrong and how you can tell instantly.

REASONING

Show your thinking

Answer

8. Explain why no probability can ever be greater than 1, using the definition.

REASONING

Show your thinking

Answer