Question ID a6782e11

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Probability and conditional probability	

ID: a6782e11

Each face of a fair 14-sided die is labeled with a number from 1 through 14, with a different number appearing on each face. If the die is rolled one time, what is the probability of rolling a 2?

A. $\frac{1}{14}$

B. $\frac{2}{14}$

C. $\frac{12}{14}$

D. $\frac{13}{14}$

Question ID a19bcf30

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Probability and conditional probability	

ID: a19bcf30

	Live east of the river	Live west of the river	Total
Less than 40 years old	17	11	28
At least 40 years old	18	89	107
Total	35	100	135

The table summarizes members of a local organization by age and whether they live east or west of the river. If a member of the organization is selected at random, what is the probability that the selected member is at least 40 years old?

A. $\frac{28}{135}$

B. $\frac{35}{135}$

C. $\frac{100}{135}$

D. $\frac{107}{135}$

Question ID c6eafed7

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Probability and conditional probability	

ID: c6eafed7

Each of 157 gemstones can be classified as one of three classifications, as shown in the frequency table.

Classification	Frequency
color X	119
color Y	3
color Z	35

If one of the gemstones is selected at random, what is the probability of selecting a gemstone of color Y?

A. $\frac{3}{157}$

B. $\frac{35}{157}$

C. $\frac{119}{157}$

D. $\frac{154}{157}$

Question ID d2c6cb57

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Probability and conditional probability	

ID: d2c6cb57

Each rock in a collection of 70 rocks was classified as either igneous, metamorphic, or sedimentary, as shown in the frequency table.

Classification	Frequency
igneous	10
metamorphic	33
sedimentary	27

If one of these rocks is selected at random, what is the probability of selecting a rock that is igneous?

A. $\frac{10}{27}$

B. $\frac{10}{33}$

C. $\frac{10}{60}$

D. $\frac{10}{70}$

Question ID ff60764c

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Probability and conditional probability	

ID: ff60764c

$$-11, -9, 26$$

A data set of three numbers is shown. If a number from this data set is selected at random, what is the probability of selecting a positive number?

A. 0

B. $\frac{1}{3}$

C. $\frac{2}{3}$

D. 1

Question ID 97470cc0

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Probability and conditional probability	

ID: 97470cc0

The table gives the distribution of votes for a new school mascot and grade level for 80 students.

Mascot	Grade level			
	Sixth	Seventh	Eighth	Total
Badger	4	9	9	22
Lion	9	2	9	20
Longhorn	4	6	4	14
Tiger	6	9	9	24
Total	23	26	31	80

If one of these students is selected at random, what is the probability of selecting a student whose vote for new mascot was for a lion?

A. $\frac{1}{9}$

B. $\frac{1}{5}$

C. $\frac{1}{4}$

D. $\frac{2}{3}$