# Question ID 68ce71ce

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: 68ce71ce**

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. $\frac{2}{3}$

# Question ID 319d549a

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: 319d549a**

On a street with $7$ houses, $2$ houses are blue. If a house from this street is selected at random, what is the probability of selecting a house that is blue?

A. $\frac{1}{7}$

B. $\frac{2}{7}$

C. $\frac{5}{7}$

D. $\frac{7}{7}$

# Question ID 8c3dbdc3

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

ID: 8c3dbdc3

$-13, 4, 23$

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 negative number?

A. $0$

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

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

D. $1$

# Question ID e1c12384

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: e1c12384**

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 3d477649

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: 3d477649**

There are $20$ buttons in a bag: $8$ white buttons, $2$ orange buttons, and $10$ brown buttons. If one of these buttons is selected at random, what is the probability of selecting a white button?

A. $\frac{2}{20}$

B. $\frac{8}{20}$

C. $\frac{10}{20}$

D. $\frac{12}{20}$

# Question ID 6d37f1b4

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

ID: 6d37f1b4

| | 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 07aa4624

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: 07aa4624**

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 ff02ccf9

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: ff02ccf9**

A band with $45$ members has $11$ members who play saxophone. If one band member is selected at random, what is the probability of selecting a band member who plays saxophone?

A. $\frac{1}{45}$

B. $\frac{11}{45}$

C. $\frac{34}{45}$

D. $\frac{45}{45}$

# Question ID 614e5d4f

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: 614e5d4f**

For a particular machine that produces beads, $29$ out of every $100$ beads it produces have a defect. A bead produced by the machine will be selected at random. What is the probability of selecting a bead that has a defect?

A. $\frac{1}{2,900}$

B. $\frac{1}{29}$

C. $\frac{29}{100}$

D. $\frac{29}{10}$

# Question ID 85e8cb3f

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

ID: 85e8cb3f

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 30f650d7

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

ID: 30f650d7

$-11, -9, 26$

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 f2af8e90

| Assessment | Test | Domain | Skill | Difficulty |
|---|---|---|---|---|
| SAT | Math | Problem-Solving and Data Analysis | Probability and conditional probability | Easy |

**ID: f2af8e90**

| | 1 visit | 2 or more visits | Total |
|---|---|---|---|
| Less than 40 years old | 15 | 15 | 30 |
| At least 40 years old | 20 | 85 | 105 |
| Total | 35 | 100 | 135 |

The table summarizes customers who visited a car dealership in the last month by age and number of visits they made to the dealership. If a customer from the last month is selected at random, what is the probability that the selected customer is at least 40 years old?

A. $\frac{30}{135}$

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

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

D. $\frac{105}{135}$