

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. $\frac{2}{3}$
- $$\frac{20}{80} = \frac{1}{4} //$$

Question ID 319d549a

Assessment	Test	Domain	Skill	Difficulty
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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. $\frac{7}{7}$
- $\frac{2}{7}$

Question ID 8c3dbdc3

Assessment	Test	Domain	Skill	Difficulty
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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
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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

} 157

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. $\frac{154}{157}$

$\frac{3}{157}$ //

Question ID 3d477649

Assessment	Test	Domain	Skill	Difficulty
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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
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ID: 6d37f1b4

	Live east of the river	Live west of the river	Total
Less than 40 years old	17	11	28
At <u>least</u> 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. $\frac{107}{135}$~~

$$\frac{107}{135} //$$

Question ID 07aa4624

Assessment	Test	Domain	Skill	Difficulty
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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. $\frac{13}{14}$

$\frac{1}{14}$ //

Question ID ff02ccf9

Assessment	Test	Domain	Skill	Difficulty
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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. $\frac{45}{45}$

$\frac{11}{45}$ //

Question ID 30f650d7

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

ID: 30f650d7

$-11, -9, \underline{26}$

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

$\frac{1}{3}$

Question ID 614e5d4f

Assessment	Test	Domain	Skill	Difficulty
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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. $\frac{29}{10}$

$$\frac{29}{100}$$

Question ID 85e8cb3f

Assessment	Test	Domain	Skill	Difficulty
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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 f2af8e90

Assessment	Test	Domain	Skill	Difficulty
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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. $\frac{105}{135}$~~

$$\frac{105}{135}$$