

Question ID fef1f5c9

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Problem-Solving and Data Analysis	Probability and conditional probability	<div><div></div><div></div><div></div></div>

ID: fef1f5c9

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 5aba7ae0

Assessment	Test	Domain	Skill	Difficulty
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ID: 5aba7ae0

−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 89b3ea02

Assessment	Test	Domain	Skill	Difficulty
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ID: 89b3ea02

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 aae6aebd

Assessment	Test	Domain	Skill	Difficulty
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ID: aae6aebd

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 59b985a2

Assessment	Test	Domain	Skill	Difficulty
PSAT/NMSQT & PSAT 10	Math	Problem-Solving and Data Analysis	Probability and conditional probability	<div><div></div><div></div><div></div></div>

ID: 59b985a2

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 c17aedbe

Assessment	Test	Domain	Skill	Difficulty
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ID: c17aedbe

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 ce4fa697

Assessment	Test	Domain	Skill	Difficulty
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ID: ce4fa697

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 275bc8e8

Assessment	Test	Domain	Skill	Difficulty
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ID: 275bc8e8

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 3ce69ff2

Assessment	Test	Domain	Skill	Difficulty
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ID: 3ce69ff2

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. $\frac{7}{7}$