Question ID b1b5300b

P´PLEUM

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

ID: b1b5300b

2.1

Prices of 14 Different Cars

Type of car	Priced at no more than $25,000	Priced greater than $25,000	Total
Nonhybrid	5	3	8
Hybrid	2	4	6
Total	7	7	14

The table above shows information about 14 cars listed for sale on an auto dealership's website. If one of the cars listed for sale is selected at random, what is the probability that the car selected will be a hybrid car priced at no more than $25,000 ?

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

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

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

D. $\frac{4}{7}$

$\frac{2}{14} = \frac{1}{7}$ //

Question ID e1ad3d41

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

ID: e1ad3d41

2.2

Coat color	Eye color		
	Deep blue	Light brown	Total
Cream-tortoiseshell	16	16	32
Chocolate	12	4	16
Total	28	20	48

ถ้าโจทย์ไม่บอกถือว่า
X
Grant Total

The data on the coat color and eye color for 48 Himalayan kittens available for adoption were collected and summarized in the table above. What fraction of the chocolate-colored kittens has deep blue eyes?

A. $\frac{12}{48}$

B. $\frac{12}{28}$

C. $\frac{16}{32}$

D. $\frac{12}{16}$

$\frac{12}{16}$ //

Fraction ของส่วนตามด้วยเศษ

Question ID 0301c5dc

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

ID: 0301c5dc 2.3

The table below shows the number of state parks in a certain state that contain camping facilities and bicycle paths.

	Has bicycle paths	Does not have bicycle paths
Has camping facilities	20	5
Does not have camping facilities	8	4

37

If one of these state parks is selected at random, what is the probability that it has camping facilities but does not have bicycle paths?

A. $\frac{5}{37}$

$\frac{5}{37}$ //

B. $\frac{5}{25}$

C. $\frac{8}{28}$

D. $\frac{5}{9}$

Question ID 0ae37ff3

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

ID: 0ae37ff3

2.4

In a bag, there are 7 red, 4 white, 33 blue, and 33 yellow cubes. If one of these cubes is selected at random, what is the probability of selecting a cube that is neither blue nor yellow?

A. $\frac{6}{7}$

B. $\frac{7}{11}$

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

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

$$\frac{7+4}{77} = \frac{1}{7}$$

Question ID 2df8f293

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

ID: 2df8f293

2.5

Each vertex of a 14-sided polygon is labeled with one of the 14 letters A through N, with a different letter at each vertex. If one vertex is selected at random, what is the probability that the letter D will be at the selected vertex? (Express your answer as a decimal or fraction, not as a percent.)

$\frac{1}{14}$

//

Question ID 912cd125

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

ID: 912cd125

2.6

For a science project, Anka recorded whether it rained each weekday and weekend day for 12 weeks. Her results are summarized in the table below.

Weekday and Weekend Day Rain for 12 Weeks

	Rain	No rain	Total
Number of weekdays	12	48	60
Number of weekend days	8	16	24
Total	20	64	84

If one of the days on which there was no rain is selected at random, what is the probability the day was a weekend day?

A. $\frac{4}{21}$

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

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

D. $\frac{3}{4}$

$\frac{16}{64} = \frac{1}{4}$ //

Question ID 30db8f77

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

ID: 30db8f77

2.7

At a conference, there are a total of 275 attendees. Each attendee is assigned to either group A, group B, or group C. If one of these attendees is selected at random, the probability of selecting an attendee who is assigned to group A is 0.44 and the probability of selecting an attendee who is assigned to group B is 0.24. How many attendees are assigned to group C?

$1-(0.44+0.24)$

$=0.32$

$0.32(275)=88$ //

Question ID 38a9ac45

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

ID: 38a9ac45

2.8

If 1,200 customers register for new accounts at a social media website every day, what fraction of the first 60,000 new accounts are registered in the first 5 days?

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

B. $\frac{1}{10}$

C. $\frac{1}{12}$

D. $\frac{1}{50}$

$$\frac{1,200(5)}{60,000} = \frac{1}{10}$$

Question ID b6569d0e

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

ID: b6569d0e

2.9

United States Presidents from 1789 to 2015

Ages	Number
40–44	2
45–49	7
50–54	13
55–59	11
60–64	7
65–69	3

10

34

The table above gives the number of United States presidents from 1789 to 2015 whose age at the time they first took office is within the interval listed. Of those presidents who were at least 50 years old when they first took office, what fraction were at least 60 years old?

A. $\frac{10}{43}$

B. $\frac{10}{34}$

C. $\frac{10}{24}$

D. $\frac{25}{34}$

$\frac{10}{34}$ //

Question ID a3384df0

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

ID: a3384df0

2.10

Penguin Exhibit

Type of penguin	Male	Female	Total
Chinstrap	41	59	100
Emperor	8	27	35
Gentoo	49	54	103
Macaroni	42	40	82
Total	140	180	320

The number of penguins in a zoo exhibit, sorted by gender and type of penguin, is shown in the table above. Which type of penguin has a female population that is the closest to being $\frac{1}{3}$ of the total female penguin population in the exhibit?

$\frac{1}{3}(180) = 60$

A. Chinstrap

B. Emperor

C. Gentoo

D. Macaroni

Question ID 46b2e169

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

ID: 46b2e169

2.11

A box contains 13 red pens and 37 blue pens. If one of these pens is selected at random, what is the probability of selecting a red pen? (Express your answer as a decimal or fraction, not as a percent.)

$$\frac{13}{50} = 0.26$$

// //

Question ID f8696cd8

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

ID: f8696cd8

2.12

	Human Resources	Accounting
Bachelor's degree	4	3
Master's degree	2	6

6

The table above shows the number of people who work in the Human Resources and Accounting departments of a company and the highest level of education they have completed. A person from one of these departments is to be chosen at random. If the person chosen works in the Human Resources department, what is the probability that the highest level of education the person completed is a master's degree?

A. $\frac{2}{15}$

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

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

D. $\frac{8}{15}$

$$P(M \mid HR) = \frac{P(M \cap HR)}{P(HR)}$$

$$= \frac{2}{6}$$

$$= \frac{1}{3}$$