

Table data

Preferred sport	10 th graders	11 th graders	Total
Football	30	—	—
Basketball	—	—	136
Total	—	166	—

Guilherme asked the 10th and 11th graders at his school which sport they preferred between basketball and football. The table above displays a portion of the results. If 20% of the surveyed students who prefer football are in 10th grade, then how many of the surveyed 11th graders at Guilherme's school prefer basketball?

(A) 27

(B) 46

(C) 120

(D) 150

Chapter	Skills problems	Analysis problems	Total
Chapter 1	11	12	23
Chapter 2	10	11	21
Chapter 3	6	12	18
Chapter 4	23	4	27
Total	50	39	89

A science textbook has four chapters, each with a number of skills problems and of analysis problems. A table representing this information is on the left. Based on the table, which of the following statements is true?

(A) The relative frequency of analysis problems coming from chapter 4 is $\frac{4}{39}$.

(B) The relative frequency of analysis problems coming from chapter 2 is $\frac{21}{89}$.

(C) The relative frequency of problems in chapter 1 being skills problems is $\frac{12}{23}$.

(D) The relative frequency of problems in chapter 2 being skills problems is $\frac{2}{3}$.

Table data

Time period	Fewer than 100 pages	100 – 499 pages	500 or more pages	Total
Old/Middle English	1	2	2	5
Neo-classical	0	1	2	3
19 th century	1	7	6	14
20 th century	1	0	2	3
Total	3	10	12	25

Several English professors categorized the literary works from their seminars by time period and length as shown in the table at the left. According to the table, what percentage of those books with 500 or more pages are from the 19th century?

A 17%

B 43%

C 50%

D 56%

	On time	Late	Total
Route A	5	6	11
Route B	2	10	12
Route C	6	11	17
Total	13	27	40

Victor decides to try three different routes to work for a period of 40 days. In the table above, he tracked whether he arrived to work late or on time each time that he used a particular route. According to the table, what is the probability that Victor was late given that he used Route A?

A $\frac{3}{20}$

B $\frac{2}{9}$

C $\frac{3}{5}$

D $\frac{6}{11}$

Table data

Enrollment trends in biologically focused programs

	Bioinformatics	Forensics	Pre-Med	Total
Male	—	—	—	310
Female	—	—	—	381
Total	97	214	380	691

A biology professor is investigating trends in current enrollment of male/female undergraduate students in certain biologically focused cross-departmental programs. The above table represents the professor's findings. Note that students are not allowed to enroll in more than one of these programs at this particular school. About how many female students should be enrolled in the forensics program to provide evidence that enrolling in forensics is independent of student gender?

(A) 66

(B) 118

(C) 210

(D) 214
