

GRE Data Interpretation Practice Questions 2

11. If an integer is randomly selected from all positive 2-digit integers, what is the probability that the integer chosen has

- (a) a 4 in the tens place?
- (b) at least one 4 in the tens place or the units place?
- (c) no 4 in either place?

12. In a box of 10 electrical parts, 2 are defective.

- (a) If you choose one part at random from the box, what is the probability that it is not defective?
- (b) If you choose two parts at random from the box, without replacement, what is the probability that both are defective?

13. The table in Data Analysis Figure 26 below shows the distribution of a group of 40 college students, all of whom are sophomores, juniors, or seniors, by gender and class.

	Sophomores	Juniors	Seniors
Males	6	10	2
Females	10	9	3

If one student is randomly selected from this group, find the probability that the student chosen is

- (a) not a junior
- (b) a female or a sophomore
- (c) a male sophomore or a female senior

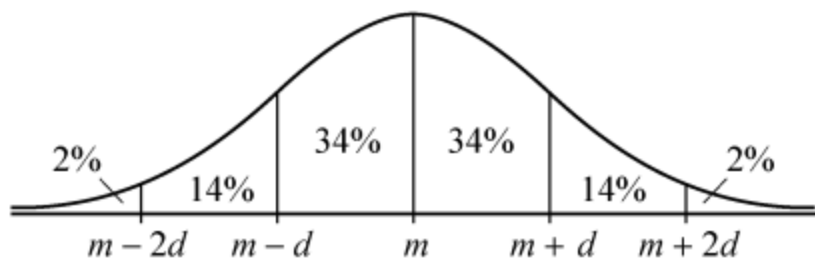
14. Let A , B , C , and D be events for which $P(A \text{ or } B) = 0.6$, $P(A) = 0.2$, $P(C \text{ or } D) = 0.6$, and $P(C) = 0.5$. The events A and B are mutually exclusive, and the events C and D are independent.

- (a) Find $P(B)$
- (b) Find $P(D)$

15. Lin and Mark each attempt independently to decode a message. If the probability that Lin will decode the message is 0.80 and the probability that Mark will decode the message is 0.70, find the probability that

- (a) both will decode the message
- (b) at least one of them will decode the message
- (c) neither of them will decode the message

16. This exercise is based on Data Analysis Figure 27 below.

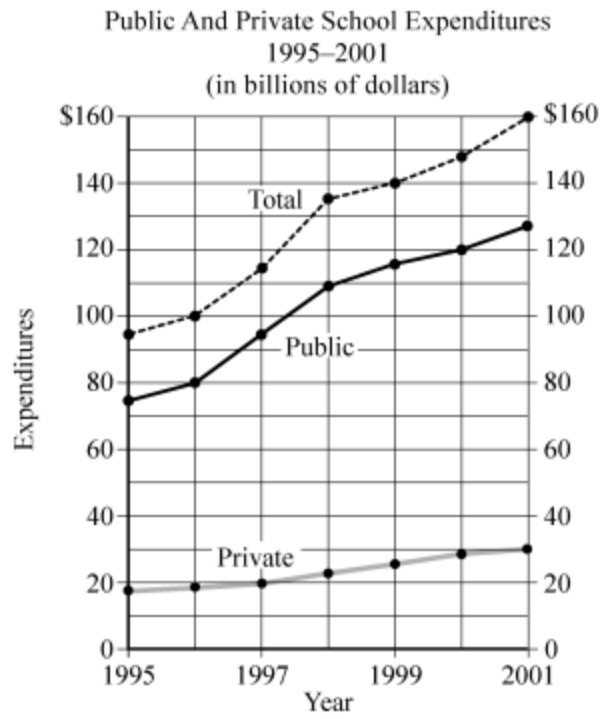


The figure shows a normal distribution with mean m and standard deviation d , including approximate percents of the distribution corresponding to the six regions shown.

Suppose the heights of a population of 3,000 adult penguins are approximately normally distributed with a mean of 65 centimeters and a standard deviation of 5 centimeters.

- Approximately how many of the adult penguins are between 65 centimeters and 75 centimeters tall?
- If an adult penguin is chosen at random from the population, approximately what is the probability that the penguin's height will be less than 60 centimeters?
Give your answer to the nearest 0.05.

17. This exercise is based on Data Analysis Figure 28 below.



- (a) For which year did total expenditures increase the most from the year before?
- (b) For 2001, private school expenditures were approximately what percent of total expenditures?

18. This exercise is based on Data Analysis Figure 29 below.

Distribution of Workforce by Occupational Category
for Region Y in 2001 and Projected for 2015



Data Analysis Figure 29

- (a) In 2001, how many categories each comprised more than 25 million workers?
- (b) What is the ratio of the number of workers in the Agricultural category in 2001 to the projected number of such workers in 2015 ?
- (c) From 2001 to 2015, there is a projected increase in the number of workers in which of the following three categories?

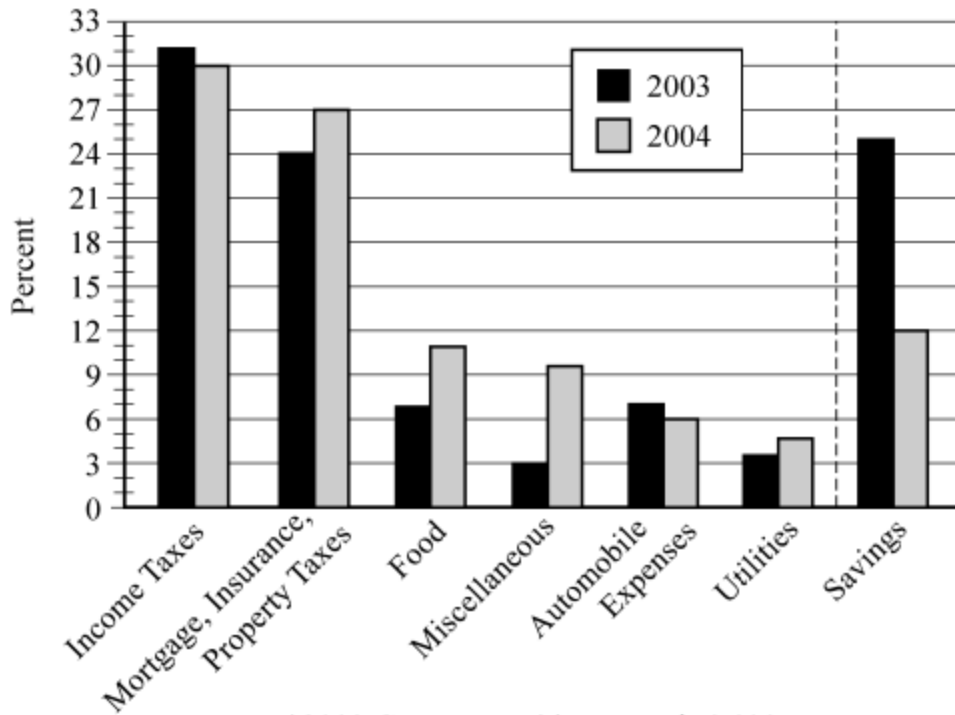
Category 1: Sales

Category 2: Service

Category 3: Clerical

19. This exercise is based on Data Analysis Figure 30 on the following page. (Data Analysis Figure 30 has been rotated 90 degrees to fit on the page.)

A Family's Expenditures and Savings
as a Percent of Its Gross Annual Income*



*2003 Gross annual income: \$50,000
2004 Gross annual income: \$45,000

(a) In 2003 the family used a total of 49 percent of its gross annual income for two of the categories listed. What was the total amount of the family's income used for those same categories in 2004 ?

(b) Of the seven categories listed, which category of expenditure had the greatest percent increase from 2003 to 2004 ?