Mean, Median, Mode, and Range (A) Answers

Calculate the mean, median, mode, and range of each set of numbers.

1) $\{18, 18, 63, 63, 84\}$

Mean: 49.2 Modes: 18, 63
Median: 63 Range: 66

2) $\{19, 21, 29, 32, 89\}$

Mean: 38 No mode.
Median: 29 Range: 70

3) $\{41, 41, 41, 44, 90\}$

Mean: 51.4 Mode: 41
Median: 41 Range: 49

4) $\{25, 37, 39, 85, 85\}$

Mean: 54.2 Mode: 85
Median: 39 Range: 60

5) $\{12, 36, 64, 65, 82\}$

Mean: 51.8 No mode.
Median: 64 Range: 70

6) $\{30, 57, 59, 76, 91\}$

Mean: 62.6 No mode.
Median: 59 Range: 61

7) $\{27, 27, 49, 77, 84\}$

Mean: 52.8 Mode: 27
Median: 49 Range: 57

8) $\{25, 46, 62, 76, 97\}$

Mean: 61.2 No mode.
Median: 62 Range: 72

9) $\{22, 35, 58, 63, 75\}$

Mean: 50.6 No mode.
Median: 58 Range: 53

10) $\{45, 45, 47, 88, 89\}$

Mean: 62.8 Mode: 45
Median: 47 Range: 44

11) $\{58, 84, 90, 90, 97\}$

Mean: 83.8 Mode: 90
Median: 90 Range: 39

12) $\{25, 36, 36, 40, 68\}$

Mean: 41 Mode: 36
Median: 36 Range: 43

13) $\{18, 18, 33, 34, 54\}$

Mean: 31.4 Mode: 18
Median: 33 Range: 36

14) $\{19, 19, 27, 36, 64\}$

Mean: 33 Mode: 19
Median: 27 Range: 45

15) $\{34, 52, 75, 85, 90\}$

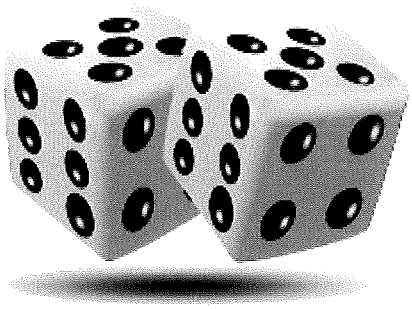
Mean: 67.2 No mode.
Median: 75 Range: 56

16) $\{55, 57, 68, 82, 99\}$

Mean: 72.2 No mode.
Median: 68 Range: 44

Sum of Two Dice Probabilities (A) Answers

Find the probability of each sum when two dice are rolled.



+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

$P(>2) = 35/36$
35/36

$P(\geq 2) = 36/36$
1/1

$P(\leq 7) = 21/36$
7/12

$P(\leq 5) = 10/36$
5/18

$P(\geq 8) = 15/36$
5/12

$P(\geq 12) = 1/36$
1/36

$P(\geq 6) = 26/36$
13/18

$P(\geq 11) = 3/36$
1/12

$P(<11) = 33/36$
11/12

$P(\geq 12) = 1/36$
1/36

$P(<5) = 6/36$
1/6

$P(10) = 3/36$
1/12

$P(<6) = 10/36$
5/18

$P(\leq 10) = 33/36$
11/12

$P(\leq 12) = 36/36$
1/1

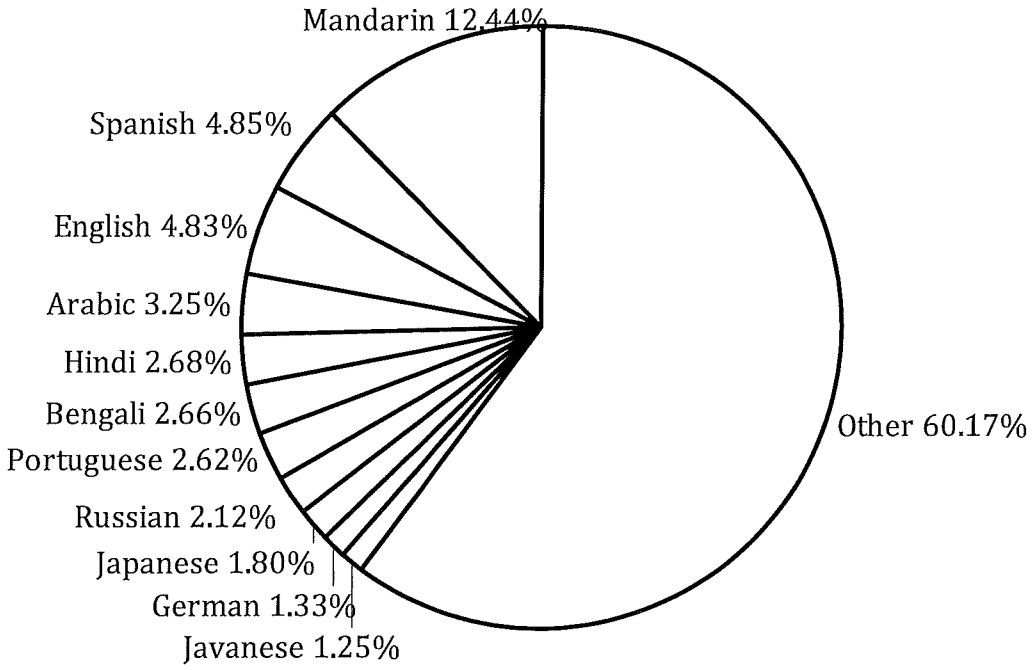
$P(>5) = 26/36$
13/18

Interpreting Circle Graphs (A) Answers

Answer the questions about the circle graph.

Languages of the World (2009 Estimate)

Percentage of people who speak each language as their first language.



Source of data: https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html

Which language is spoken by the most people?

Mandarin

What percentage of people speak one of the top 10 languages?

39.83%

What percentage of people speak one of the top 5 languages?

28.05%

If the world population was 6.8 billion in 2009, how many of those people spoke Portuguese?

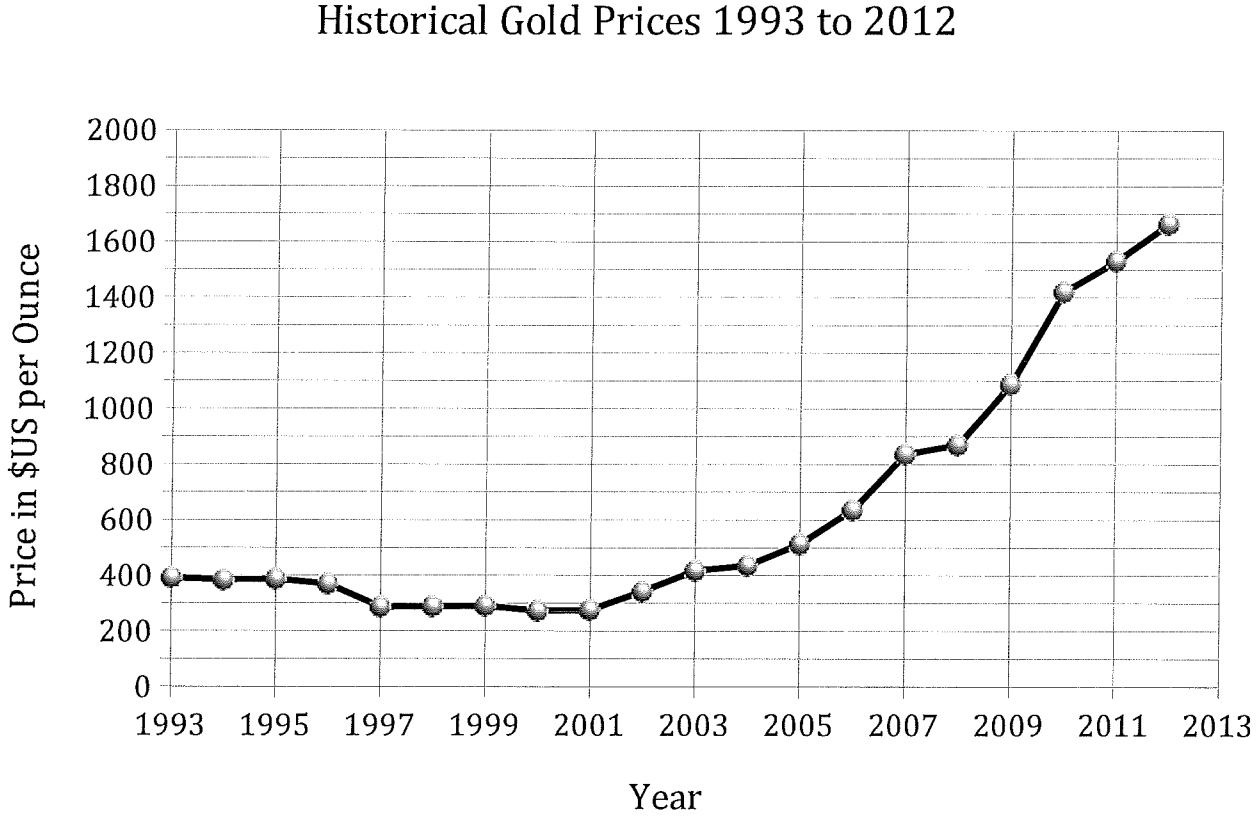
6,800,000,000 x 0.0262 = 178,160,000 (about 180 million)

There are an estimated 7,100 languages spoken in the world. Do you think this number will increase or decrease? Explain your answer.

Decrease most likely due to globalization.

Interpreting Broken-Line Graphs (A) Answers

Answer the questions about the broken-line graph.



Source of data: http://onlygold.com/tutorialpages/prices200yrsfs.htm

In what years did gold decrease in value?

1994, 1996, 1997, 2000

In what year do you think the price of gold will reach $2000 per ounce?

Based on the graph, in the next 5 years. In reality this might be completely different.

In what 3 years did gold increase the most?

2007, 2009, 2010

What was the approximate price of gold from 1997 to 1999?

Actual was $287.05, $288.70, and $290.25. Students will probably estimate around $300.

If someone bought $20,000 worth of gold in 1993, how much would that gold be worth in 2011?

$20000 would have bought about 50 ounces of gold in 1993. 50 x 1531 = $76550 in 2011.