

5.NBT.A.1 Word Problems in Rounding and Estimating

5.NBT.A.1: Recognize that a digit in one place represents 10 times as much as in the place to its right.

1. Italy's population is about 60,460,000 while Poland's population is about 37,850,000. About how much bigger is the population of Italy than Poland when rounded to the nearest million?

Answer:

2. Round each number to the nearest underlined digit.

- a. 2,367,151 d. 451,879,107,698
 b. 89,784,220,163 e. 5,308,104
 c. 1,486,103,875 f. 16,874,225,841
 d. 843,714,665 g. 24,731,048,849

Answers:

- a. d.
 b. e.
 c. f.
 d. g.

3. Helen read on a book about the distance of some planets from some other planets. The table on your right shows the data she read. Use the table to answer the following questions.

Distance of Other Planets from Earth

| Planets | Distance in Miles |
|-----------------|-------------------|
| Mercury ↔ Venus | 31,248,757 |
| Venus ↔ Earth | 25,724,767 |
| Earth ↔ Mars | 48,678,219 |
| Mars ↔ Jupiter | 342,012,346 |

- a. Make a new table by rounding each distance to the nearest million.
 b. Use the data in the new table to find out about how much farther is Mars to Earth than Venus.
 c. About how far is the distance of Earth to Jupiter?
 d. Find out about how far is the distance from Mercury to Jupiter.

Answers:

a.

| Planets | Distance in Miles |
|-----------------|-------------------|
| Mercury ↔ Venus | |
| Venus ↔ Earth | |
| Earth ↔ Mars | |
| Mars ↔ Jupiter | |

b.

c.

d.

4. Mr. Thompson asked his class to round the number 62,483,691. Kyle's answer is 62,000,000. Marybeth's answer is 62,480,000. To what place value did each of them round the number to? Whose estimate is better? Explain.

Answer:

5.NBT.A.1 Word Problems in Rounding and Estimating

5.NBT.A.1: Recognize that a digit in one place represents 10 times as much as in the place to its right.

Answer Key

1. Italy's population is about 60,460,000 while Poland's population is about 37,850,000. About how much bigger is the population of Italy than Poland when rounded to the nearest million?

Answer:
22,000,000

2. Round each number to the nearest underlined digit.

- a. 2,367,151 d. 451,879,107,698
b. 89,784,220,163 e. 5,308,104
c. 1,486,103,875 f. 16,874,225,841
d. 843,714,665 g. 24,731,048,849

Answers:

- a. 2,400,000 d. 500,000,000,000
b. 89,780,000,000 e. 5,310,000
c. 1,500,000,000 f. 20,000,000,000
d. 844,000,000 g. 24,700,000,000

3. Helen read on a book about the distance of some planets from some other planets. The table on your right shows the data she read. Use the table to answer the following questions.

Distance of Other Planets from Earth

| Planets | Distance in Miles |
|-----------------|-------------------|
| Mercury ↔ Venus | 31,248,757 |
| Venus ↔ Earth | 25,724,767 |
| Earth ↔ Mars | 48,678,219 |
| Mars ↔ Jupiter | 342,012,346 |

- a. Make a new table by rounding each distance to the nearest million.
b. Use the data in the new table to find out about how much farther is Mars to Earth than Venus.
c. About how far is the distance of Earth to Jupiter?
d. Find out about how far is the distance from Mercury to Jupiter.

Answers:

a.

| Planets | Distance in Miles |
|-----------------|-------------------|
| Mercury ↔ Venus | 31,000,000 |
| Venus ↔ Earth | 26,000,000 |
| Earth ↔ Mars | 49,000,000 |
| Mars ↔ Jupiter | 342,000,000 |

b.

23,000,000

c.

391,000,000

d.

448,000,000

4. Mr. Thompson asked his class to round the number 62,483,691. Kyle's answer is 62,000,000. Marybeth's answer is 62,480,000. To what place value did each of them round the number to? Whose estimate is better? Explain.

Answer:

Kyle: nearest millions; Marybeth: nearest ten thousands; Marybeth's estimate is better because it is closer to the actual number.