

Practice These Problems as You Prepare for Friday's Math Test

Write each number in standard notation.

- ① 10^6 1,000,000 ② $3 * 10^6$ 3,000,000
 ③ 10^3 1,000 ④ $24 * 10^3$ 24,000

Write each number in exponential notation.

- ⑤ 30,000 $3 * 10^4$ ⑥ 70,000,000 $7 * 10^7$

Renee is in charge of the school carnival for 380 students. She has 47 boxes of prizes. Each box has 22 prizes. She wants to make sure she has enough prizes for each student to win 2 prizes.

- ① Does Renee have enough prizes? Yes

Explain how you solved the problem.

Renee has 1,034 Prizes.
 She only needs 762 Prizes

$$\begin{array}{r} 47 \text{ boxes} \\ \times 22 \text{ Prizes} \\ \hline 194 \\ 94 \times \\ \hline 1034 \text{ Total Prizes} \end{array}$$

$$\begin{array}{r} 380 \text{ Students} \\ \times 2 \text{ Prizes} \\ \hline 762 \\ \downarrow \\ \text{Total Prizes Needed} \end{array}$$

- ② Does Renee have enough prizes for each student to win 3 prizes? _____

Explain.

$$\begin{array}{r} 380 \text{ Students} \\ \times 3 \text{ Prizes} \\ \hline 1140 \end{array}$$

→ No - Every Student getting 3 prizes would be a total of 1,140 Prizes. She only has 1,034 Prizes.

Write each number in expanded form.

- ③ 397 $300 + 90 + 7$
 ④ 1,268 $1000 + 200 + 60 + 8$
 ⑤ 4,082 $4000 + 0 + 80 + 2$
 ⑥ 29,141 $20,000 + 9,000 + 100 + 40 + 1$

Make an estimate and solve.

③ $70 \times 20 = 1400$
 68×23

Estimate: 1400

$$\begin{array}{r} \cancel{7} \\ 68 \\ * 23 \\ \hline 204 \\ 136 \times \\ \hline 1564 \end{array}$$

④ 300×15 ($15 \times 3 = 45$)
 278×15

Estimate: 4500

$$\begin{array}{r} \cancel{3} \\ 278 \\ * 15 \\ \hline 1390 \\ 278 \times \\ \hline 4170 \end{array}$$

Solve using any method you wish

③ $931 / 12 \rightarrow ?$

$$\begin{array}{r} \times 77 \text{ r } 7 \text{ (or } \frac{7}{12}) \\ 12 \overline{) 931} \\ \underline{-84} \\ 91 \\ \underline{-84} \\ 7 \end{array}$$

④ $716 / 21 \rightarrow ?$

$$\begin{array}{r} \times 34 \text{ r } 2 \text{ (or } \frac{2}{21}) \\ 21 \overline{) 716} \\ \underline{-63} \\ 86 \\ \underline{-84} \\ 2 \end{array}$$

- ② Your classroom received 150 books. You are placing them in bins. Each bin holds 20 books. How many bins do you need?

Quotient: 7 Remainder: 10 (or $\frac{10}{20}$)

Answer: I need 8 bins.

Circle what you did with the remainder.

Ignored it

Rounded the quotient up

Why?
 If I use 7 bins I will not have enough bins for all the books

150 BOOKS

20 How many Books each Bin Holds

$$\begin{array}{r} \times 7 \text{ r } 10 \\ 20 \overline{) 150} \\ \underline{-140} \\ 10 \end{array} \text{ (or } \frac{10}{20})$$