
SAMPLE SECTION I [GOAL 10-15 Minutes All Correct] Score: ____/13

Scientific Notation and Exponents - Answer the following:

1. $72 \times 10^2 - 19.01 \times 10^2 = \underline{\hspace{2cm}} \times 10^2$

2. $0.583 \times 10^4 - 48.88 \times 10^2 = \underline{\hspace{2cm}} \times 10^4$

3. $0.37 \times 10^2 + 4.7 \times 10^3 = \underline{\hspace{2cm}} \times 10^2$

4. $3.683 \times 10^3 + 0.62 \times 10^2 = \underline{\hspace{2cm}} \times 10^3$

5. $7.1 \times 10^3 + 3 \times 10^2 = \underline{\hspace{2cm}} \times 10^3$

6. $5.2 \times 10^3 + 0.62 \times 10^2 = \underline{\hspace{2cm}} \times 10^3$

7. $0.618 \times 10^3 + 0.59 \times 10^4 = \underline{\hspace{2cm}} \times 10^3$

8. $6.2 \times 10^3 + 0.05 \times 10^3 = \underline{\hspace{2cm}} \times 10^3$

9. $8.45 \times 10^3 - 0.7 \times 10^2 = \underline{\hspace{2cm}} \times 10^3$

10. $6.7 \times 10^3 - 6.5 \times 10^2 = \underline{\hspace{2cm}} \times 10^2$

11. $0.81 \times 10^3 + 0.8 \times 10^3 = \underline{\hspace{2cm}} \times 10^3$

12. $0.583 \times 10^4 + 0.59 \times 10^3 = \underline{\hspace{2cm}} \times 10^4$

13. $62.3 \times 10^2 + 0.22 \times 10^4 = \underline{\hspace{2cm}} \times 10^2$

SAMPLE

Score: ____/10

Arrange in increasing order:

1. $8/18$ $5/9$ 0.67 $10/15$ $(2/3)^{-2}$
2. $14/11$ 1.23×10^0 $(4/3)^2$ $(-2.5) \div (-1.5)$
3. $1/5$ of 28, $1/4$ of 21, $1/2$ of 11, $1/3$ of 17
4. $(2/5)^2$, $(4/3)^{-2}$, $(0.5)^2 \div 2^{-2}$, $1 \frac{4}{5}$ of $1/2$
5. $6/13$, $3/7$, $9/20$, $15/32$, $(0.75)^2$

Word Problems:

6. Regular price of CDs is \$7.50 each. They have a promotion on them. Five CDs cost \$30. Which of the following discount offers are true for the CDs?
- a) Buy 2 get 1 free
 - b) Buy 3 get 1 free
 - c) Buy 1 get 1 free
 - d) Buy 3 Get one for 1/2 price

- 7-8. Dana has covered 15 miles on her bike. She covered the first 9 miles at 5 miles an hour and the remaining distance at 4 miles an hour.
7. How long did she take for the total distance?

-
8. Which of these is the ratio of time taken for the 1st half to the 2nd half of the distance?

- a) 4:5 b) 15:19 c) 19:15 d) 5:6

- 9-10. A team won $5/6$ of the games it played in a year. Next year it won $3/4$ of the games. In the third year, it won $2/3$ of the games that it played.
9. On average, what fraction of the games did it win in the 3 years?

-
10. Each year, the same number of games was played. If more than 15 games were played each year, what is the minimum number of games that was played every year?
-