

CHAPTER 2

In 1–5, simplify.

1. $\frac{8x}{5} \cdot \frac{3}{7}$ 1. _____
2. $2x \cdot \frac{3}{y}$ 2. _____
3. $\frac{15a}{20a^2}$ 3. _____
4. $(-5)^4$ 4. _____
5. $\frac{202!}{200!}$ 5. _____
6. What is the reciprocal of $\frac{9}{4x}$? 6. _____
7. If $n! = 5040$, what is the value of n ? 7. _____
8. If $a = -5$, is the value of $-6a$ positive or negative? 8. _____
9. When $x = \frac{4}{5}$, find the value of $\frac{1}{x}$. 9. _____
10. Evaluate $(m - 3.2)(m + 4.1)$ when $m = -4.1$. 10. _____

In 11–14, solve.

11. $\frac{3}{5}t = 30$ 12. $0a = 15$ 11. _____
12. _____ 12. _____
13. $42x > 7$ 14. $-y \leq -10$ 13. _____
14. _____ 14. _____
15. The Fast Service Delivery driver has packages to deliver to 5 different offices. In how many different orders can he make the deliveries? 15. _____
16. Give a negative number that is the same as its reciprocal. 16. _____

17. The statement $5 \cdot (7.3 \cdot 2) = 5 \cdot (2 \cdot 7.3)$ is an instance of which property?

17. _____

18. A mechanic charges \$28.50 per hour for labor. If the labor cost for a repair was \$135.38, how long did the mechanic work on the car?

18. _____

In 19–22, solve each problem. Show your work.

19. In order to enter an apartment building, a person must enter a security code. The code is a letter followed by 3 digits. How many different codes are possible?

19. _____

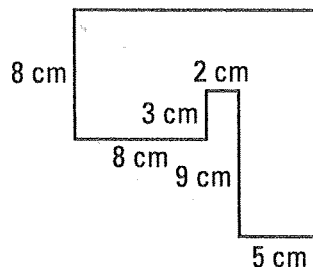
20. What is the volume of a box 3 feet high, $2k$ feet wide, and $5k$ feet long?

20. _____

21. A cubit, an ancient unit of linear measure, is believed to equal 18 inches. How many feet long was Noah's ark, which is reported in the Bible to be 300 cubits long?

21. _____

22. In the figure at the right, all the angles are right angles. Find the area. Explain how you got your answer.



22. _____

Now check all your work carefully.