

1.  $32.21 - 4.68 =$ 
  - a. 14.59
  - b. 27.53
  - c. 1.459
  - d. 31.742
2.  $(7.2)(0.34) =$ 
  - a. 14.18
  - b. 2.234
  - c. 2.64
  - d. 2.448
3.  $8:10 :: x:100, x = ?$
4. A hospital day staff consists of 25 registered nurses, 75 unlicensed assistants, five phlebotomists, six receptionists and office staff, and forty-five physicians. One summer day the staff was only at 68% strength. How many people were working that day?
5. A farmer raises chickens for eggs and meat. Any chicken that does not lay at least one egg a week is moved to the slaughterhouse. The farmer has 765 chickens that can lay one egg each day. Each day 80% of the chickens lay eggs. How many eggs does the farmer collect each day?

6. A teacher's aide is preparing a snack for the class. In order to prepare the powdered drink the aide must convert the directions to metric measurements. The directions say, "Dilute contents of package in 2 quarts of water." The aide's measuring device only measures in liters. How many liters of water should be used? (Enter numeric value only. Round to nearest tenth if necessary.)
  
7. Express 40% as a fraction and decimal.
  
8. Express  $\frac{3}{8}$  as a decimal and percent.
  
9. Express 0.24 as a fraction and percent.
  
10. Last night at a certain hospital 76 babies were born. Of the births, 45% were girls. How many boys were born last night?
  
  
  
  
  
  
  
  
  
  
11. A doctor tells a patient to cut back on coffee. The patient usually has four 8-oz cups of coffee per day. If the doctor told him to cut back by 25%, how many ounces of coffee can the patient consume each day?

12. A worker is filling out his timesheet. He worked 8 hours on Monday, 7 hours and 30 minutes on Tuesday,  $8\frac{3}{4}$  hours on Wednesday, 4 hours on Thursday, and  $8\frac{1}{4}$  hours on Friday. If his hourly wage is \$14.35, what will be his gross pay for this week?

13. Evaluate:  $2x^2-3xy-2y^2+10$ , for  $x=2$  and  $y=-3$

14. Solve for x:

a.  $2x-3 = 17$

b.  $3-4x = 27$

c.  $2-(x-4) = 8$

d.  $2(3x-4) = 6x-8$

15. Use the rules for order of operations to simplify the following:

a.  $15 - 8 \div 4 \times 3$

b.  $16 - 10 + 4 - 13$

c.  $\frac{13 - 2 \times 4}{2^3 + 1}$

d.  $2\frac{2}{5} + 3\frac{2}{3}$

e.  $5\frac{1}{4} - 3\frac{3}{5}$

f.  $\frac{2}{3} \times 4\frac{1}{4} \times \frac{3}{17}$

g.  $4\frac{1}{2} \div \frac{5}{9}$

16. Express in AM/PM time:

a. 2359

b. 2000

c. 1200

d. 0000

e. 1545

17. Express in 24-hour time

a. 11:30 AM

b. Midnight

c. Noon

d. 2:30 PM

e. 11:00 PM

18. Convert the following:

a.  $50^\circ \text{ F}$  to  $^\circ \text{ C}$

b.  $41^\circ \text{ C}$  to  $^\circ \text{ F}$