Mixed operations word problems

Grade 5 Word Problems Worksheets

Read and answer each question:

A hospital has 12 floors. On each floor, there are 294 beds. The hospital employs 196 doctors, 1,772 nurses and 830 supporting staff.

1. There are 8 wards on each floor and each ward has the same number of beds. There are a few extra beds on each floor for emergency use. How many extra beds are there on each floor?

2. If there are the same number of beds on each floor, what is the maximum number of patients that can stay in the hospital?

3. What is the total number of staff members employed by the hospital?

4. On a Saturday afternoon, 54 doctors and 597 nurses are on duty in the hospital. How many nurses are off duty?

5. During each shift, there are 7 nurses needed at each ward. If there are three shifts in a day, each nurse only can be on duty for one shift each day. How many more nurses does the hospital need to employ?

6. Write an equation using “x” and then solve the equation. Each support staff is paid $x per shift and each doctor is paid $150 more than each support staff. During a shift with 22 doctors and 71 supporting staff, the total salary is $26,565.
Answers

1.  \[294 \div 8 = 36\text{R}6\]
   There are 6 extra beds on each floor.

2.  \[294 \times 12 = 3,528\]
   The maximum number of patients that can stay in the hospital is 3,528.

3.  \[196 + 1,772 + 830 = 2,798\]
   There are 2,798 staff members employed by the hospital.

4.  \[1,772 - 597 = 1,175\]
   1,175 nurses are off duty.

5.  \[7 \times 8 \times 12 = 672\]
   672 nurses are needed for each shift.
   \[672 \times 3 - 1,772 = 244\]
   The hospital needs to employ 244 more nurses.

6.  \[22(x+150) + 71x = 26,565\]
   \[22x + 3300 + 71x = 26,565\]
   \[93x = 23,565\]
   \[x = 250.16\]
   Each support staff is paid $250.16 per shift.