

KEY

Instructions: Give exact answers unless specifically asked to round. Dollars and cents can always be rounded to the nearest penny.

1. Write the following numbers in Roman numerals or Arabic numerals as needed.

a. 771

DCC LXX I

c. LXXVII

77

b. 80

LXXX

d. LIV

54

2. Find the least common multiple of 21 and 33.

21, 42, 63, 84, 105, 126, 147, 168, 189, 210, 231, ...

33, 66, 99, 132, 165, 198, 231, ...

231

3. If a medication is to be given at 8 mg per 75 lbs of body weight and the doctor tells you to give the patient 17.5 mg, approximately how much does the patient weigh? You may round to the nearest pound.

$$\frac{8}{75} = \frac{17.5}{x}$$

$$8x = \frac{1312.5}{8}$$

$$x = 164.0625 \approx 164 \text{ lbs.}$$

4. Suppose that you make \$15.00/hr. Any time above 40 hours/week makes time-and-a-half, and Sunday is paid at double time. In a particular week you work 8 hours per day Monday, Tuesday, Wednesday and Friday; 5 hours on Thursday; and a 4-hour shift on Sunday. How many hours did you work that week and what was your take-home pay before taxes.

$$8 \times 4 = 32 + 5 = 37 \quad \text{no time-a-half}$$

$$\frac{3}{40} + 1 \text{ at double time}$$

$$15 \times 40 + 15 \times 2 \times 1 = 600 + 30 = 630.00$$