(1) Subtract: \(21.1 - 0.035\)

(2) Multiply: \(20.03 \times 0.175\)

(3) Find the quotient when 0.064 is divided by 2.5.

(4) Convert 0.025 to a ratio in simplest form.

(5) Convert 1.92 to a fraction (or mixed number) in lowest terms.

(6) Convert \(\frac{5}{32}\) to a decimal.

(7) How many grams are there in 0.6321 kilogram?

(8) If an apple weighs about 170 grams, then about how many apples are in a 3.5-kilogram bag of apples? Round your answer to the nearest whole apple.

(9) If Mr. Tate is 2.2 meters tall, then how many kilometers tall is he? How tall is he in feet (to the nearest inch)? Use the fact that 1 meter is \(\sim 39.37\) inches.

(10) How many milliliters of pure alcohol are in a bottle containing one ounce of pure alcohol? Use the fact that 1 mL is \(\sim 0.034\) oz. Give your answer to the nearest mL.

(11) A patient weighs 200 pounds. The patient is to receive medication with a prescribed dosage of 10 milliliters per 10 kilograms. Determine the number of ounces of the medication the patient should receive by solving for \(x\) in the proportion \(10 \text{ mL} : 10 \text{ kg} : x \text{ oz} : 200 \text{ lb}\). Use the facts that 1 kg is \(\sim 2.2\) lbs and that 1 mL is \(\sim 0.034\) oz. Give your answer to the nearest ounce.

(12) Which is larger? Compare the fractions \(\frac{4}{7}\) and \(\frac{6}{11}\).

(13) Which is larger? Compare the fractions \(\frac{13}{20}\) and \(\frac{15}{24}\).

(14) A patient drinks 12 ounces of water every 2 hours. At this rate how long will it take the patient to drink 42 ounces of water?

(15) If there are 120 calories in one serving of 3 cookies, then how many calories are in 12 cookies?

(16) A patient is losing 4 ounces per week. At this rate how many weeks will it take for the patient to lose a total of 2 pounds?

(17) A patient's heart beats 21 times in 15 seconds. At this rate how many times will the patient's heart beat in 60 seconds?

(18) Each can of Ensure® contains 8 ounces, and there are 24 cans in a case. How many ounces are contained in 4 cases of Ensure®?
(19) A patient is on two separate IV drips simultaneously for exactly 3 days. One drip bag requires replacement every 2 hours. The other requires replacement every 6 hours. How many drip bags will be needed over the course of the 3-day period?

(20) A hospital wing has 37 nurses on duty during the midday hours. This number is three more than twice the number on duty overnight. How many nurses were on duty overnight?

(21) A hemodialysis patient must have an average daily potassium intake of 1600 mg. How many whole bananas, at 425 mg of potassium per banana, should such a patient eat over a two-day period if each day she will also have a half-grapefruit? A half-grapefruit contains 325 mg of potassium. Assume that the patient is not eating other foods containing measurable amounts of potassium.

(22) Written in Roman Numerals, the year during which the Health Information Portability and Accountability Act (HIPAA) became law was MCMXCVI. What year was this in Arabic numerals?

(23) A particular type of catheter tube is considered unsafe for use three calendar years after its production (to ensure that it hasn’t become too brittle for use). If the year of production of a batch of these tubes is labeled as MMVII, are the tubes still safe for use?

(24) SaniCover Gauze Pads are packaged in boxes of 36, with each box costing a hospital $9.00. If a particular emergency room requires, on average, 12 SaniCover pads per hour, then what is the typical daily cost to the hospital of supplying this emergency room with SaniCover pads?

(25) In 2006, 90 doctors were affiliated with Good Enough Regional Medical System. If Good Enough Regional Medical System now has 20% more doctors affiliated with it than it did in 2006, then how many doctors are currently affiliated?

(26) A nurse is on duty at a military medical center from 2015 hours one day until 0345 hours the next day. How long is this nurse’s shift in hours and minutes?

(27) Multiply: \[
\frac{3}{5} \times \frac{5}{6}
\]

(28) Subtract: \[
9 \frac{2}{3} - 3 \frac{5}{6}
\]

(29) Divide: \[
28 \div \frac{2}{3}
\]

(30) Add: \[
\frac{4}{7} + 8 \frac{2}{3}
\]