Monday, 2.22

A partially filled pool contains 600 gallons of water. A hose is turned on, and water flows into the pool at the rate of 8 gallons per minute. How many gallons of water will be in the pool after 70 minutes?

Tuesday, 2.23

The normal systolic blood pressure P, in millimeters of mercury, for an adult male x years old can be modeled by the equation $P = \dfrac{x + 220}{2}$. According to the model, for every increase of 1 year in age, by how many millimeters of mercury will the normal systolic blood pressure for an adult male increase?

Wednesday, 2.24

In a study of bat migration habits, 240 male bats and 160 female bats have been tagged. If 100 more female bats are tagged, how many more male bats must be tagged so that $\dfrac{3}{5}$ of the total number of bats in the study are male?

Thursday, 2.25

$$\frac{x}{y} = 6$$
$$4(y + 1) = x$$

If (x, y) is the solution to the system of equations above, what is the value of y ?

A) 2

B) 4

C) 12

D) 24

Friday, 2.26

While preparing to run a marathon, Amelia created a training schedule in which the distance of her longest run every week increased by a constant amount. If Amelia's training schedule requires that her longest run in week 4 is a distance of 8 miles and her longest run in week 16 is a distance of 26 miles, which of the following best describes how the distance Amelia runs changes between week 4 and week 16 of her training schedule?

A) Amelia increases the distance of her longest run by 0.5 miles each week.

B) Amelia increases the distance of her longest run by 2 miles each week.

C) Amelia increases the distance of her longest run by 2 miles every 3 weeks.

D) Amelia increases the distance of her longest run by 1.5 miles each week.