

Day 2

Act. #99 (cont.)

**14** HOW MUCH MONEY WOULD MARY HAVE TO START WITH IN ORDER TO END WITH \$4300 AFTER 48 MONTHS COMPOUNDED CONTINUOUSLY AT 2.3%?

**15** SOLVE:  $(\log 2 + \log x) - \log 3 = \log 12$

**16** If there are 33 people and 14 are women, what are the odds of one being a man?

**17** IF THE PROBABILITY OF AN EVENT OCCURRING IS  $\frac{5}{11}$ , WHAT IS THE ODDS THE EVENT WILL OCCUR?

**18** A bathroom floor has tiles arranged in 9 circles. The innermost circle contains 9 tiles. Each successive circle contains 9 more tiles than the previous circle. How many total tiles are on the bathroom floor?

- A. 81
- B. 396
- C. 405
- D. 729

**19** Rewrite  $\frac{\pi}{6}$  radians in degree measure.

- A.  $30\pi^\circ$
- B.  $30^\circ$
- C.  $120^\circ$
- D.  $60^\circ$

**20** Find the seventh term of the arithmetic sequence in which  $a_1 = 3$  and  $d = 5$ .

- A. 33
- B. 38
- C. 30
- D. 31

**21**

A town has 685 households. The number of people per household is normally distributed with a mean,  $\mu$ , of 3.67 and a standard deviation,  $\sigma$ , of 0.34.

**Approximately** how many households have between 2.99 and 4.01 people?

- A 493 households
- B 520 households
- C 558 households
- D 575 households

**22**

Evaluate :

$$\sum_{x=3}^{10} (2x+4)$$

Formula

$$S_n = \frac{n}{2} (a_1 + a_n)$$

**23**

James is standing 10 meters away from Samantha.

- A bird is located in the sky at a point between where James and Samantha are standing.
- James is looking up at the bird at an angle of elevation of  $74^\circ$ .
- Samantha is looking up at the bird at an angle of elevation of  $47^\circ$ .

**Approximately** how far is the bird from Samantha?

- A 7.6 meters
- B 8.5 meters
- C 11.2 meters
- D 13.1 meters

**24**

Solve for  $\angle B$  (tenth place)

$$189^2 = 150^2 + 147^2 - 2(150)(147) \cos B$$