Simulation (week 2)

**Arithmetic reasoning** (30 minutes):

1) A bricklayer charges $3 per square foot to lay a patio. **How much would it cost for the bricklayer to lay an 8-foot-x-11-foot patio?**

(A) $38 (B) $88

(C) $114 (D) $264

2) There are 40 male and 50 females working at a hospital. **What percentage of the hospitals workforce is not female?**

(A) 90% (B) 44% (C) 80% (D) 38% (E)40%

3) Every 150 gallon of water produces 30 gallons of gasoline. How many gallons of water produce 5,000 gallons of gasoline?

A. 45,000 B.15,000 C, 30,000 D. 25,000

4) John’s pickup truck can only reach a speed of 60 miles per hour. **If he drives at top speed, how long will it take him to reach a city 525 miles away?**

(A) 8.8 hours (B) 7.3 hours

C) 8.6 hours (D) 7.1 hours

5) Brian works for five hours and is paid $40.

Christina works for three hours and is paid$20.50. **How much more per hour does Brian make than Christina?**

(A) $19.50 (B) $0.77 (C) $1.17 (D) $1.23

6) Debbie receives a weekly salary of $90, plus a 10% commission on any sales. During the week, she has $500 in total sales. **What’s the ratio of her commission to salary?**

(A) 5/9 (B) 50/9 (C) 9/50 (D) 9/5

7) **How many gallon cans can be filled from a 80 quarts of paint?**’

(A) 320 (B) 240 (C) 20 (D) 40 (E) 30

8) **If a crew of four people can paint the barn in twenty days, how long will it take a crew of 2 people? (assume they paint at the same speed)**

(A) 3 days (B 40 days

(C) 10 days (D) 30 days (E) 45 days

9) A dog trainer is building a dog run that measures 14 x 10 feet. **If she wants to fence the dog run, how many feet of chain link fence will she need?**

(A) 140 feet (B) 24 feet (C) 25 feet (D) 150 feet (E) 48 feet

10. Terry earns 3 times more per hour than

Tim. Tim earns $5 more per hour than

Angie. **As a group they earn $30 per hour.**

**What’s Angie’s hourly wage?**

(A) $1.00 (B) $2.00

(C) $3.00 (D) $4.00

11. Miguel won eight basketball games and lost 3. **The fraction of games not won is correctly expressed as:**

(A) (B) (C) (D) (E) (F)

12. A car salesman earns a commission of 2/9 on the used cars he sales. **If he sells $18,000 worth of used cars, how much commission does he make?**

(A) $4,800 (B) $3,140

(C) $4,000 (D) $3,000

13. Sarah found a wallet containing $200 in the street. She returned the wallet to its owner, who gave her an $60 reward. **What percentage of the $200 was the reward?**

(A) 3% (B) 35% (C) 30% (D) 2%

**Word Knowledge:** (9 minutes)

1. Schema most nearly means:

(A) scythe (B) summary

(C) preparation (D) series

2. He **loathed** the bullies**.**

(A) load (B) bread (C) punch (D) abhor

3. **gaze** most nearly means:

(A) limp (B) hiatus (C) observe

(D) dawn (E) evil

4. I am only here to **edify** you.

(A) rough (B) aid (C) educate (D) maintain

5. **Egocentric** most nearly means:

(A) selfish (B) reserved

(C) adverse (D) middle

6. **matriarch** most nearly means:

(A) matrix (B) mythology

(C) role mother (D) source

7) **Arguable** most nearly means:

a) battle b) reveal c) competent d) debatable

8)The storm began to **materialize** faster than expected.

a) material b) appear

c) wind d) circular movement

9) The **larcenist** served his sentence.

a)shadow b) intruder c) monitor d) tip

10) The economy began to **thrive** after the recession finished.

a) succeed b) decline c) produce d) awful

11) The **turmoil** after the crash was immense John did not know what to do next.

a) chaos b) fall c) pain d) petroleum

12) **Unanimous** most nearly means:

a) tendency b) agreement

c) anonymous d) individual

13) The student got in trouble because he began to **criticize** the girl.

a) disapproval b) hit c) throw d) laugh

14) **Ritualistic** most nearly means:

a) wealth b) ceremonial c) form d) patron

15) **Metamorphosis** most nearly means:

a) cancelled b) warp c)alteration d) physics

16. **Physician** most nearly means:

A. doctor B. medicine C. fiscal D. nurse

17. Jeopardy most nearly means:

A. peril B. random C. game D. trivial

18. Chasm most nearly means:

A. Enchant B. Quantify C. Miracle D. Gorge

19. Drove most nearly means:

A. Stuck B. Cow Heard C. Drive D. Flock of Birds

**Mathematics Knowledge:** (13 minutes)

**1. If x = 5 and y = 3, what is the value of the following expression:3xy - 12y + 5x**

a. 124 b. 160 c. 29 d. 34 E. 75

**2. Simply the following: (3x - 2) (4x - 1)**

a. 7x2 -6x -3 b. 12x2 -5x + 2

c. 12x2 -11x + 2 d. 12x2 +5x - 2

**3. 4! =**

a. 24 b. 120 c. 28 d. 10 e. 4

**4. A rectangle has a width of 5m and a length of 10m. What is its perimeter?**

a. 20 m b. 50 m c. 30 m d. 15 m

**5. 13 + 8=**

a. 1 b. 3 c. 11 d. 9 E. 10

**6. In the equation 8*x* + 2*y* =40, at what point is the *y*-axis intersected?**

a. (0,20) b. (20, 0) c. (5,0) d. (0,5)

**7. (103)2**

a. **105** b. **106** c. **101.5** d. **1024**

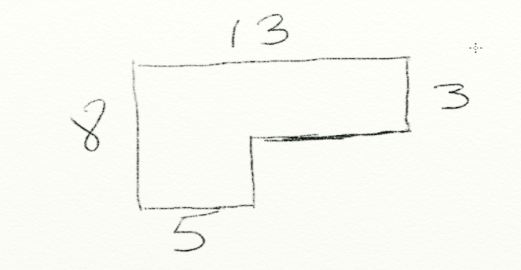
**8. The average of 34, 20, 44, 19**

a. 26 b. 27 c. 28 d. 29

**9. What is the volume of a box measuring 5-inches long by 4-inches deep by 10-incheshigh?**

a. 19 b. 200 c. 29 d. 240

**10. What is the area of the following figure:**

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**a. 69 b. 48 c. 75 D. 40 E. 64**

**11. The reciprocal of 3/5?**

a. 2/5 b. 5/3 c. 3/5 d. 5/2

**12. Solve for y: 2(y + 2) + 20 = 28**

a. 2 b. -4 c. 6 d. -2

13. Solve for x: 2x + 10 = 20

a. 5 b. -5 c. 15 D. -15 E. 7.5

**Simulation Paragraph comprehension:** (5 minutes and 30 seconds)

1. Beowulf is an epic poem that is important because it is often viewed as the first significant work of English literature. Although it was first written in 700A.D. it is thought to be even hundreds of years older than that. It is believed that the story of Beowulf was told for centuries before it ever made its way on to paper. It is still taught today in various schools and universities.

**Beowulf is a significant poem because:**

a. it was first written down in 700A.D.

b. it was told for centuries before it was written down

c. it is still taught today in academic settings

d. it is the first important work of English literature

2. Cats are by far a superior pet compared to dogs. They are perfect for the working person, as they don't mind being left alone during the day. In addition, they are very easy to litter train. They require little care or effort, and are much cheaper to feed compared to dogs.

**The author's purpose in writing this passage is:**

a. to make an equivalent comparison between cats and dogs

b. to discuss why cats are the best pet in the world

c. to show why cats are cheaper to feed

d. to explain why cats are preferred to dogs

3. Malaria is a dangerous disease that is still common in many countries. It is carried and transmitted to humans by female mosquitoes. When they bite humans or animals, the malaria parasite is introduced into the human's or animal's bloodstream. The parasites travel to the liver. There, they multiply, and soon they infect red blood cells. Malaria symptoms like fever will begin to be experienced at this point.

**After the malaria parasites infect the red blood cells:**

a. symptoms like fever occur

b. the parasites multiply

c. the parasites travel to the liver

d. malaria is transmitted by mosquitoes

4. Many people feel that summer water sports are dangerous. While accidents do occur, the vast majority are preventable. For example, boating is a relatively safe activity, provided that life vests are worn and a reasonable speed is maintained. When diving, it's important to know the area well and be certain that water is deep enough. Finally, alcohol should never be consumed while engaging in water sports or activities. Following these simple tips would prevent many accidents.

**The main idea expressed in the passage is:**

a. summer sports are dangerous

b. many people who engage in water activities are careless

c. boating is a safe activity if precautions are followed

d. summer water activities aren't necessarily dangerous