TACHS Review

This is a sample of the math sections.

PART 1

Directions: Select the best answer out of the four choices.

30 minutes is allotted for this section

1. Which of the following is NOT a factor of 36?
   A. 2
   B. 3
   C. 8
   D. 9

2. Simplify $4(7 - 2)^2 - 2(3 + 9)$
   A. 76
   B. 78
   C. 376
   D. 378

3. Find the quotient of 1620 and 36.
   A. 30
   B. 38
   C. 45
   D. 56

4. Which of these numbers is equivalent to $8^4$?
   A. 32
   B. 64
   C. 4096
   D. 65536

5. What is the difference of 12.6 and 9.2?
   A. 3.2
   B. 3.3
   C. 3.4
   D. 3.5

6. Which of NOT a prime number?
   A. 5
   B. 11
   C. 21
   D. 23

7. Find the product of $\frac{1}{2}$ and $\frac{3}{15}$. Reduce to lowest terms.
   A. $\frac{1}{10}$
   B. $\frac{4}{17}$
   C. $\frac{3}{30}$
   D. $\frac{4}{15}$
8. Change \( \frac{6}{7} \) to a decimal and round to the nearest thousandth.
   A. 0.855
   B. 0.856
   C. 0.857
   D. 0.858

9. Which of the following is a multiple of 9?
   A. 21
   B. 24
   C. 26
   D. 27

10. What is the value of \( x \) if \( 20 + x = 5 \) is a true statement?
    A. 10
    B. 4
    C. 2
    D. 1

11. Chris is on a diet. His starting weight was 220 pounds. During his first month of dieting, Chris lost \( \frac{1}{10} \) of his starting weight. During his second month of dieting, Chris lost \( \frac{1}{18} \) of his weight at the start of the second month. What is his current weight?
    A. 185
    B. 187
    C. 190
    D. 196

12. If $500 is to be distributed equally among 25 people, how much money should each person receive?
    A. $10
    B. $15
    C. $20
    D. $25

13. Barbara receives a base salary of $400 per week plus 8% commission on all sales over $800. If she sold $1200 for the week, what was her total salary for the week?
    A. $500
    B. $450
    C. $446
    D. $432

14. Jillian is 19 years old. Her brother Tom is 5 years younger than she is. Her sister Erica is 7 years older than she is. What is the sum of the ages of the three siblings?
    A. 59
    B. 45
    C. 42
    D. 39

15. Robert leaves for a road trip at 10:00 am. He arrives at his destination at 8:00 pm. If Robert drove a total of 620 miles, what was his average rate of speed?
    A. 60 mph
    B. 62 mph
    C. 65 mph
    D. 70 mph
16. The temperature is 80° Fahrenheit at 5:00 pm. If the temperature decreases 20% by 8:00 am the next morning and then increases 10% by 4:00 pm, what is the temperature at 4:00 pm? Round to the nearest degree.
   A. 70°
   B. 71°
   C. 72°
   D. 73°

17. Jennifer receives a salary of $1200 per week. Sue gets 10% less than Jennifer. What is the difference between their salaries?
   A. $100
   B. $120
   C. $140
   D. $200

18. The height of a statue on a blueprint is 3 inches. If the actual height of the statue is 20 feet, what is the ratio of the blueprint to the actual height of the statue?
   A. 1:90
   B. 1:80
   C. 3:20
   D. not given

19. Jackie plays the piano. Over the next three days she practices 2.5 hours, 3 hours and 4 hours respectively. What is the average number of hours a day Jackie practiced over the past three days?
   A. 3.16 hours
   B. 3.17 hours
   C. 3.19 hours
   D. 4 hours

20. Justin wants to buy a guitar. The guitar costs $250. He currently has $180 saved. If he receives a $10 a week allowance, how many weeks will it take for Justin to save enough money to buy the guitar?
   A. 4
   B. 5
   C. 6
   D. 7
Use the chart below to answer questions 21 and 22.

![Circle Graph]

21. The circle graph shows the percentage of people that favor a certain color. If 420 people were polled, how many people favor the color green?
   A. 40
   B. 41
   C. 42
   D. 44

22. What is the ratio of people who prefer green to people who prefer purple?
   A. 5:4
   B. 3:2
   C. 5:2
   D. 10:9

Use the chart below to answer questions 23 and 24.

![Bar Graph]

23. The chart above shows the gas prices for the months April to July. What was the average cost of gas during these months?
   A. $2.50
   B. $3.00
   C. $3.50
   D. cannot be determined
24. How much did the price of gas drop from April to May?
A. $2.00
B. $2.50
C. $3.00
D. cannot be determined

Use the chart below to answer questions 25 and 26.

<table>
<thead>
<tr>
<th>Major Network Television Shows</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reality</td>
<td>2</td>
<td>3</td>
<td>12</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td>Comedy</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>Law</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>21</td>
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<tr>
<td>Detective</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Cartoons</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>News</td>
<td>20</td>
<td>24</td>
<td>15</td>
<td>15</td>
<td>74</td>
</tr>
<tr>
<td>Summary</td>
<td>49</td>
<td>61</td>
<td>60</td>
<td>67</td>
<td>237</td>
</tr>
</tbody>
</table>

25. In 2008, what percent of all television shows were detective stories?
A. 25%
B. 18%
C. 30%
D. 10%

26. How many more news programs were there in 2006 than in 2009?
A. 6
B. 7
C. 5
D. 4
Use the chart below to answer questions 27 and 28.

![Chart showing annual use of meat, sugar, and milk in kilograms per person per year for India, Mexico, Australia, Japan, and the United States.]

The chart above depicts the annual use of meat, sugar and milk in kilograms per person per year.

27. Which two countries had about the same level of sugar usage per person?
   A. India and Japan
   B. India and the United States
   C. Japan and the United States
   D. Mexico and Australia

28. Which country had the least amount of milk usage per person?
   A. India
   B. Mexico
   C. Australia
   D. Japan

Use the chart below to answer questions 29 and 30.

<table>
<thead>
<tr>
<th></th>
<th>Residents in 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Dorp</td>
<td>☀ ☀ ☀</td>
</tr>
<tr>
<td>Tottenville</td>
<td>☀</td>
</tr>
<tr>
<td>Port Richmond</td>
<td>☀ ☀ ☀ ☀</td>
</tr>
<tr>
<td>Oakwood Heights</td>
<td>☀ ☀ ☀ ☀ ☀</td>
</tr>
<tr>
<td>Bulls Head</td>
<td>☀ ☀ ☀ ☀</td>
</tr>
</tbody>
</table>

= 10,000 people

29. How many people lived in Bulls Head in 2008?
   A. 50,000
   B. 40,000
   C. 10,000
   D. 30,000
30. How many more people lived in Port Richmond than in Tottenville in 2008?  
   A. 10,000  
   B. 20,000  
   C. 30,000  
   D. 40,000

PART 2

Directions: Estimate the answer in your head. No writing is permitted. An exact answer is not expected. 
10 minutes is allotted for this section.

31. The closest estimate of 7298 – 4160 is what?  
   A. 1000  
   B. 2000  
   C. 3000  
   D. 4000

32. Select the closest estimate of 3(4.6 + 5.2) – 2(9.8 – 3.1).  
   A. 14  
   B. 16  
   C. 18  
   D. 20

33. Select the closest estimate of (6.125)².  
   A. 32  
   B. 34  
   C. 38  
   D. 40

34. April can type approximately 48 words per minute. At this rate, how many minutes would it take to type 500 words?  
   A. 5  
   B. 10  
   C. 15  
   D. 20

35. What is the closest sum of $3\frac{3}{4}$, $18\frac{2}{3}$, and $35\frac{1}{2}$?  
   A. 50  
   B. 54  
   C. 58  
   D. 65

36. The closest estimate of $427 ÷ 7$ is what?  
   A. 50  
   B. 60  
   C. 70  
   D. 80

37. In a recent study it was determined that 5% of every EverBrite light bulb is defective. If 9372 light bulbs are manufactured, approximately how many would you expect to be defective?  
   A. 200  
   B. 450  
   C. 700  
   D. 850
38. Jason deposited $288 into a bank account paying 2.5% simple annual interest. At this simple interest rate, about how much would be the interest after 5 years?
A. $10
B. $25
C. $30
D. $45

Use the chart below to answer questions 39 and 40.

The chart above depicts the amount of minutes it took Steven, James, and John to run a one mile jog from April through July.

39. Estimate how many minutes it took Steven to jog one mile in June.
A. 10
B. 11
C. 13
D. 15

40. About how many minutes faster did James jog one mile in June than it took for John to jog one mile in April?
A. 2
B. 4
C. 8
D. 10
Answers

1. C
2. A
3. C
4. C
5. C
6. C
7. A
8. C
9. D
10. B
11. B
12. C
13. D
14. A
15. B
16. A
17. B
18. B
19. B
20. D
21. C
22. A
23. C
24. B
25. D
26. C
27. D
28. A
29. B
30. C
31. C
32. B
33. C
34. B
35. C
36. B
37. B
38. D
The Verbal portion of the TACHS exam tests your skills in Reading and in Language. The two Reading Sections of the exam are divided into a Vocabulary Test and a Reading Comprehension Test.

The Vocabulary Test consists of 20 questions, which you will have 10 minutes to answer.

The Reading Comprehension Test consists of 30 questions and is comprised of several short reading passages. Some questions will ask about information stated in the passages. Some will ask you to think about the passage and draw conclusions based on what you have read.

The Language section is comprised of a Spelling test, a Punctuation test, a Capitalization Test, a Usage test, and an Expression test. There are 40 questions in this section from these various topics. You will have 23 minutes to answer the questions in this section.

Sample Questions

Below are some sample questions and directions for each of the TACHS Verbal categories. These should make you more comfortable with the content and format of the test.

READING TEST

Part I

This is a test about words and their meanings.

➢ For each question, you are to decide which one of the four answers has most nearly the same meaning as the underlined word(s) above it.
➢ Choose the answer that you think is better than the others.

1. a belligerent villain
   A friendly
   B educated
   C nasty
   D fearful

   ***Hint: you know it has to be something that can describe a villain!!!!

2. the placid meadow
   J peaceful
   K positioned
   L portly
   M predictable

   ***Hint: you know it has to be something that can describe a meadow!!!!!
3. a stack of counterfeit money  
**Hint:** What could a stack of money be described as?  
A expensive  
B fake  
C high  
D necessary  

4. performed with vigor  
**Hint:** What can a person perform with?  
J lies  
K calmness  
L music  
M energy  

5. sagacious advice  
**Hint:** What kind of advice would you want to get?  
A vicious  
B cold  
C wise  
D floppy  

6. an intrepid warrior  
J clumsy  
K brave  
L confused  
M relaxed  

7. filled with awe  
A amazement  
B dirt  
C material  
D oddities  

8. read with cognition  
J wariness  
K promise  
L heart  
M awareness  

9. a meandering road  
A straight  
B curious  
C winding  
D wondering
Part II

- Read the passage below and then answer the questions.
- Four answers are given for each question. You are to choose the answer that you think is better than the others.

Alexander’s dexterity as he set up his Coleman stove, assembled pots and pans and bags of food, was at variance with his appearance. Bony and slightly stooped, he had the look of someone who was destined to trip over cracks and get tangled up in his own two feet. But no. With training, with eyes less myopic, with a shorter frame, he had it within him to be a great dancer. But life of Alexander was full of a lot of if-onlys. If only he were more handsome, less nervous, more practical, less absentminded, more confident, less hesitant. Then, oh then, things would be different.

1. What is the purpose of this paragraph?
A To show that dancing is a valuable profession
B To prove that being clumsy is a good thing
C To teach the reader more about Alexander
D To inform the reader of Alexander’s exact location

2. What does the word variance mean in this passage?
J Anger
K Skill
L Fire
M Listlessness

3. Which of the following best describes Alexander’s physical appearance?
A Pale and sickly
B Very muscular
C Short and pudgy
D Tall and thin

LANGUAGE TEST

This is a test of how well you can find mistakes in writing. The directions below tell what type of mistake to look for.

- On the questions about spelling, capitalization, and punctuation, choose the answer with the same letter as the line containing the mistake. When there is no mistake at all, choose the last answer.
- On the questions about usage and expression, follow the specific directions for each question.
Directions: Look for mistakes in spelling.

1. A complete  
   B compleet  
   C discreet  
   D discrete  
   E (No mistakes)

2. J effects  
   K affects  
   L efforts  
   M efforts  
   N (No mistakes)

3. A fashion  
   B passion  
   C attraction  
   D detraction  
   E (No mistakes)

Directions: Look for mistakes in capitalization.

4. J My family and I  
   K traveled to arizona  
   L on a large airplane.  
   M (No mistakes)

5. A The f.b.i. has decided  
   B the criminals because of  
   C their horrible crimes.  
   D (No mistakes)

6. J We wanted to sleep,  
   K but Cathy made us stay  
   L awake to see the Sun rise.  
   M (No mistakes)

Directions: Look for mistakes in punctuation.

7. A Make sure that you pick  
   B up milk eggs and bread  
   C when you go to the store.  
   D (No mistakes)
8. J Sometimes, what you are looking for is in the last place you look M (No mistakes)

9. A It looks like people are hungry. Did you make enough food D (No mistakes)

Answers:
1. C
2. J
3. B
4. M
5. C
6. K
7. A
8. M
9. C
10. K