Fill in the blanks in these sentences with the word that fits.

1. The ___________ ___________ __________ __________ Design process is a systematic, iterative problem solving method which produces solutions to meet human wants and desires.

2. ___________ ___________ __________ __________ assist in organizing and analyzing data used in the engineering design process.

3. Throughout the ___________ ___________ process, the design needs to be continually checked and critiqued, and the ideas of the design must be redefined and improved.

4. ___________ ___________ __________ __________ can be used to help optimization of designs and improve efficiency.

5. Statistics is ___________ ___________ __________ __________ __________ data collected, organized and analyzed.

6. The ___________ ____________ represents the average of a set of data.

7. To calculate ___________ ____________ you sum all the given elements in a data set and divide by the number of items in the data set.

8. The ___________ ___________ __________ is the middle number in a given data set.

9. When the data set has an even number of elements, the ___________ ___________ __________ is the average of the two middle numbers.

10. ___________ ____________ is the most frequently occurring number in a data set. It is possible to have more than one mode.

11. ___________ ___________ __________ __________ deviation represents the spread of a set of data. The higher the number, the larger the spread of data.

12. ___________ __________ represents the maximum value in the data set subtracted by the minimum value in the data set.

13. ___________ ___________ __________ __________ __________ represents the possibility of error in measurements for a data set.

14. Tolerance is calculated by ___________ __________ __________ of the range.

15. ___________ __________ specification limit is the largest measurement a part of clearance space is allowed, so that the part still functions.

16. ___________ __________ specification limit is the smallest measurement a part of clearance space is allowed, so that the part still functions.
17. To ___ ___ ___ ___ data and information in order to communicate, computers and calculators can be used to access, retrieve, organize process, maintain, and interpret.

18. Microsoft ___ ___ ___ ___ is a common program used to enter and formulate data.

Select your answers from the following words:

<table>
<thead>
<tr>
<th>Tolerance</th>
<th>evaluate</th>
<th>mean</th>
<th>Excel</th>
<th>design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics</td>
<td>Range</td>
<td>median</td>
<td>Standard</td>
<td>Upper</td>
</tr>
<tr>
<td>Lower</td>
<td>Engineering</td>
<td>mean</td>
<td>half</td>
<td>Computers</td>
</tr>
<tr>
<td>numerical</td>
<td>Median</td>
<td>Mode</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fill in the blank with the letter next to the word that best completes the sentence.

1. _______ represents the maximum value in the data set subtracted by the minimum value in the data set.  
   a. Tolerance  
2. Microsoft _______ is a common program used to enter and formulate data.  
   b. Excel  
3. Tolerance is calculated by _______ of the range.  
   c. Lower  
4. _______ can be used to help optimization of designs and improve efficiency.  
   d. numerical  
5. _______ specification limit is the largest measurement a part of clearance space is allowed, so that the part still functions.  
   e. median  
6. The _______ represents the average of a set of data.  
   f. Median  
7. To _______ data and information in order to communicate, computers and calculators can be used to access, retrieve, organize process, maintain, and interpret.  
   g. Engineering  
8. The _______ is the middle number in a given data set.  
   h. Upper  
9. _______ deviation represents the spread of a set of data. The higher the number, the larger the spread of data.  
   i. mean  
10. _______ assist in organizing and analyzing data used in the engineering design process.  
    j. Range  
11. Statistics is _______ data collected, organized and analyzed.  
    k. mean  
12. _______ specification limit is the smallest measurement a part of clearance space is allowed, so that the part still functions.  
    l. design  
13. _______ is the most frequently occurring number in a data set. It is possible to have more than one mode.  
    m. Computers  
14. The _______ Design process is a systematic, iterative problem solving method which produces solutions to meet human wants and desires.  
    n. half  
15. _______ represents the possibility of error in measurements for a data set.  
    o. evaluate
16. Throughout the ________ process, the design needs to be continually checked and critiqued, and the ideas of the design must be redefined and improved.

p. Standard

17. When the data set has an even number of elements, the ________ is the average of the two middle numbers.

q. Mode

18. To calculate ________, you sum all the given elements in a data set and divide by the number of items in the data set.

r. Statistics
Try to find the hidden words.

O C Y G E V L R I B C Y M B E C S A X R
M N Q U S R W R N F G M E W D E S I G N
E N K U T U H K W C B O D C V G A Y I Q
A P D U L G P A G N L D I T C F I D G U
N C M B I Y E T B P W E A B C T A M G Y
O O O G I I R V O K T N N L O T R G B O
G N U M E R I C A L B V T L A S A A O S
X N G Q P I N X C Q E L I W O W N C I H
R X R S T U Z M E A N R V Q Z W G M M Q
S Z E H T S T G X L Z V A U P E R O P
T M I N D C W E P I A M H N B E T R V L
A V X U G I M K R O X E M M C O L G C G
T C S C J I Y U M S K X L J S E P A D P
I E M T A W N M C D T C C H T T C L F K
S L V C A M I E B M Q E O H E K P U F B
T U U F G N Y D E V A L U A T E H D H G
I F S J T M D I O R L M N M A Q D I I M
C P C D Q O H A L F I I H P R I O U D R
S L O D T A Q N R Y H N R H Q Z R Q Q F
W J M B Z H O V A D I O G N M Q F U L K

Select from the following words:

- mean
- Mode
- Excel
- numerical
- Computers
- Standard
- Upper
- Range
- Tolerance
- mean
- design
- median
- Engineering
- evaluate
- Statistics
- Median
- half
- Lower
Crossword Puzzle - 4.5.1 Collecting and Processing of Information

Name:__________________________   Class:__________   Date:__________

Fill in the crossword puzzle by using the clues.

Across
1. The ___ ___ ___ ___ represents the average of a set of data.
2. ___ ___ ___ ___ ___ represents the maximum value in the data set subtracted by the minimum value in the data set.
3. ___ ___ ___ ___ is the most frequently occurring number in a data set. It is possible to have more than one mode.
7. The ___________ is the middle number in a given data set.

8. ___________ represents the possibility of error in measurements for a data set.

9. ___________ can be used to help optimization of designs and improve efficiency.

10. Throughout the ___________ process, the design needs to be continually checked and critiqued, and the ideas of the design must be redefined and improved.

11. To calculate ___________ you sum all the given elements in a data set and divide by the number of items in the data set.

12. ___________ specification limit is the smallest measurement a part of clearance space is allowed, so that the part still functions.

13. Tolerance is calculated by ___________ of the range.

**Down**

1. ___________ assist in organizing and analyzing data used in the engineering design process.

2. Microsoft ___________ is a common program used to enter and formulate data.

3. Statistics is ___________ data collected, organized and analyzed.

4. ___________ specification limit is the largest measurement a part of clearance space is allowed, so that the part still functions.

5. To ___________ data and information in order to communicate, computers and calculators can be used to access, retrieve, organize process, maintain, and interpret.

6. The ___________ Design process is a systematic, iterative problem solving method which produces solutions to meet human wants and desires.

7. When the data set has an even number of elements, the ___________ is the average of the two middle numbers.

8. ___________ deviation represents the spread of a set of data. The higher the number, the larger the spread of data.

**Select your answers from the following words:**

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