My name is ________________

Decode the Message Using the Alphabet.

A = 1  G = 7  M = 13  S = 19  Y = 25
B = 2  H = 8  N = 14  T = 20  Z = 26
C = 3  I = 9  O = 15  U = 21
D = 4  J = 10  P = 16  V = 22
E = 5  K = 11  Q = 17  W = 23
F = 6  L = 12  R = 18  X = 24

19  20   1   25   9   14   7   19   1   6   5   1   14   4   19   5   3   21   18   5

23   8   9   12   5   21   19   9   14   7   3   15   13   16   21   20   5   18   19

, 

9   19   5   22   5   18   25   15   14   5   19

18   5   19   16   15   14   19   9   2   9   12   9   20   25
Sentence Menders - Spelling

Rewrite the sentences below to make them correct. Read the words closely. Some words may not be spelled correctly.

1. Two or more computer systems that are grouped together is called a network.

2. A router is a hardware device that transfers data to the correct network.

3. A broadcast sends, or transmits, a message to many users at once.

4. A hub is a network device that connects multiple computers or other devices together.

5. An organization’s private network is called an Intranet.
Word Scrambles

Grace CyBear needs your help to unscramble the words below.

When the words are clear, read the definitions to understand what the computer words mean.

(HINT: For help with some of the scrambled words, review the "Sentence Menders" on page 2.)

1. ___________  
   WTNORERK

   Happens when two or more computer systems that are grouped together share information, software and hardware.

2. ___________  
   COTRSBAAD

   A process of transmitting the same message to multiple users simultaneously without the need for acknowledgment from users.

3. ___________  
   AITNRNTE

   An organization’s private network.

4. ___________  
   UBH

   A network device that is a common connection point for devices in a network.

5. ___________  
   BDAWIDTHN

   The volume of information that can pass through a network for a given period of time.

6. ___________  
   RROTUE

   A hardware device that transfers data packets to the appropriate networks.

7. ___________  
   TPTHS

   An Internet Protocol used for secure communication over a computer network.

8. ___________  
   AATD ESRVER

   A computer or program that provides other computers with access to shared data files over a network.
A **pronoun** is a word that can take the place of a noun.

Choose the correct pronoun to complete each sentence below. Then use the circled letters to provide clues to help you solve the following riddle:

I have keys but do not lock. I have space but have no room. You can enter but not come in. What am I?

(he/him) 1. ____ ____ uses a gamer tag, or nickname, when playing games online.

(her/she) 2. Ada tells ____ ____ mom about repeated cyberbullying at school.

(his/him) 3. Alan teaches ____ ____ ____ students about etiquette when with others online.

(We/Our) 4. ____ ____ ____ parents monitor real time communication in the chatroom.

(they/your) 5. Do you keep a list of friends on ____ ____ ____ chat’s buddy list?

(us/we) 6. ____ ____ ____ exit games where griefers are intentionally irritating other gamers.

(him/his) 7. Vint tells his teachers about cyberstalkers tracking ____ ____ ____ friends online.

(them/their) 8. A person can update topics on ____ ____ ____ ____ ____ website with a post.

**Answer to the Riddle:** ____ 2 5 ____ 4 A 8 ____
Shhh! It’s a Surprise.

We are throwing mom a surprise party this saturday. It is so hard to keep a secret from her. My brother and I are going to use cryptography techniques to keep a confidential list of everything we need for the party? We hope she will not be able to decipher our notes by converting our secret text to and understandable message. I will also post our party list to the cloud. The cloud will allow us to access the files through our phones from anywhere with an Internet connection.

Schools Get Technical.

My school recently purchased laptop computers for students to use in the classroom. I can bring my laptop computer home to work on various assignments. When connected to cyberspace, which includes the Internet and the school’s computer systems, I am required to use a Virtual Private Network (VPN). This VPN tool keeps my computer’s IP address private anonymous, and secure. My IP Address is similar to my home address, except it’s the unique address for my computer’s Internet connection. The VPN helps hide my computer’s location from cyber criminals so they can’t learn personal information about me.
If _______ like me, you love technology! Technology allows us to listen to music, play games, connect with friends on social media, and helps us with directions. Technology can be very helpful in _______ daily life.

But be careful of cyber criminals lurking online. Technology can be used to steal _______ information and harm _______ computer. You may not know about a vulnerability in_______ computer system until after_______ hacked!

Cyber criminals are also called bad actors. These bad actors can be a single person or group of people taking hostile action against _______ computer and other technology devices. Sometimes, bad actors will use a footprinting technique to quietly gather information about _______ computer system to learn about its weaknesses for a future cyber attack.

When a bad actor learns about _______ computer’s vulnerabilities and locate a flaw in its security, they can exploit this loophole in the computer’s software. Bad actors can launch a zero-day exploit in an undocumented security flaw found in _______ computer’s system. _______ not able to locate this type of advanced cyber attack until after a bad actor launches it.

Protect _______ computer systems by updating software patches when prompted by _______ computer!
**Idioms** are words or phrases that mean something different from its literal meaning. For example, “piece of cake” is another way of saying “an easy task.” It can be difficult to understand the meaning of an idiom by using the ordinary meaning of the words.

Read the following idioms about different types of cyber threats. Fill in the bubble next to the meaning that makes the most sense.

1. A Ping Flood cyber attack will **flood** a computer system with packets of data, which results in a denial of service.
   - ☐ deluge
   - ☐ overwhelm
   - ☐ break

2. Don’t let your computer **kick the bucket** from a polymorphic malware attack just because it is difficult to detect.
   - ☐ die
   - ☐ stop working
   - ☐ quit

3. An Advanced Persistent Denial of Service cyber attack can make you feel **down in the dumps** when it disrupts your online activities.
   - ☐ dirty
   - ☐ unfriendly
   - ☐ sad

4. A hacker will be on **cloud nine** after successfully running a spoofed scan on your network that can not be traced back to him.
   - ☐ fantastic
   - ☐ very happy
   - ☐ his couch

5. You might **smell a rat** after a keylogger attack broadcasts your confidential information to an attacker.
   - ☐ think something is wrong
   - ☐ want to cry about it
   - ☐ be scared
Draw a line through the three computer science terms that are like each other. Your line can be vertical, horizontal, or diagonal.

<table>
<thead>
<tr>
<th>Worm</th>
<th>Snail</th>
<th>Fishing</th>
<th>Journal</th>
<th>Fixtures</th>
<th>Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bait</td>
<td>Phishing</td>
<td>Earthworm</td>
<td>Laptop</td>
<td>Computer</td>
<td>Hardware</td>
</tr>
<tr>
<td>Snake</td>
<td>Soil</td>
<td>Vishing</td>
<td>Calculator</td>
<td>Hammer</td>
<td>Machine</td>
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</table>

<table>
<thead>
<tr>
<th>Master</th>
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<th>Builder</th>
<th>Pony</th>
<th>Bronco</th>
<th>Trojan Horse</th>
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<tbody>
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<td>Planner</td>
<td>Coder</td>
<td>Compiler</td>
<td>Flaw</td>
<td>Ransomware</td>
<td>Hoax</td>
</tr>
<tr>
<td>Engineer</td>
<td>Software Developer</td>
<td>Creator</td>
<td>Malware</td>
<td>Beetle</td>
<td>Bribe</td>
</tr>
</tbody>
</table>
Dividing by 1-Digit Divisors

Men and women over the last two hundred years have made an impact on careers connected to technology and cybersecurity. Did you know? Each member of the CyBear family is named after a person that has contributed to the growing career field of cybersecurity.

Find out how well you know the CyBear family by dividing the numbers in column one. Once you have the correct number, match the answer to the quotient and correct person! Answers may be used more than once.

Divide:

1. Widely known as one of the "Fathers of the Internet".
   \[315 \div 7 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

2. Helped devise the first commercial electronic computer.
   \[690 \div 3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

3. Instrumental in decoding the ENIGMA machine.
   \[800 \div 5 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

4. An Englishman knows as the "Father of Computer Science".
   \[960 \div 6 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

5. Considered the first computer programmer.
   \[744 \div 4 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

6. An American mathematician and a Rear Admiral in the U.S. Navy.
   \[460 \div 2 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

7. A co-designer of the TCP/IP protocols and the architecture of the Internet.
   \[405 \div 9 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

8. Recognized as having written instructions for the first computer program in the mid-1800s.
   \[558 \div 3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\]

Quotient and Person:

186 = Augusta Ada King

230 = Grace Hopper

45 = Vint Cerf

160 = Alan Turing

NOW TRY THIS:
Match each CyBear family member to their namesake, which is one of the people listed above, by visiting CultureofCybersecurity.com.
**Homonyms** are words that have the same spelling and usually sound alike, but the words have different meanings. Each word has two definitions. Fill in the two numbers below each word that match the definition.

<table>
<thead>
<tr>
<th>MOUSE</th>
<th>COOKIE</th>
<th>SLEEP</th>
<th>BOOKMARK</th>
</tr>
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<tbody>
<tr>
<td>![Mouse]</td>
<td>![Cookie]</td>
<td>![Sleep]</td>
<td>![Bookmark]</td>
</tr>
<tr>
<td>THUMBNAIL</td>
<td>GUEST</td>
<td>ARM</td>
<td>BUG</td>
</tr>
<tr>
<td>![Thumb]</td>
<td>![Guest]</td>
<td>![Arm]</td>
<td>![Bug]</td>
</tr>
</tbody>
</table>

1. **A small insect.**
2. **A user who is able to log into a site without the use of a password.**
3. **A small reproduction of an image or page.**
4. **A small rodent that typically has a pointed snout, relatively large ears and eyes, and a long tail.**
5. **A strip of leather, cardboard, or other material used to mark one’s place in a book.**
6. **A pointing device that is moved by hand around a flat surface.**
7. **The resting state in which the body is not active and the mind is unconscious.**
8. **A link stored in a web browser for future reference.**
9. **A person who is invited to visit the home of, or take part in, a function organized by another.**
10. **An error in a program or system.**
11. **Where the machine is made inactive while preserving screen layout, program states, and more.**
12. **The nail on the thumb.**
13. **A small file placed on a user’s hard disk by a server, containing details about the user’s use of the website.**
14. **To bring a device to a state of readiness.**
15. **A small sweet cake, typically round, flat, and crisp.**
16. **Each of the two upper limbs of the human body from the shoulder to the hand.**
PAGE 1
Staying safe and secure while using computers is everyone’s responsibility.

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PAGE 3
1. NETWORK  5. BANDWIDTH  
2. BROADCAST  6. ROUTER  
3. INTRANET  7. HTTPS  
4. HUB  8. DATA SERVER

PAGE 4
1. He  2. Her  3. His  4. Our  
5. your  6. We  7. his  8. their  
Riddle: KEYBOARD

PAGE 5
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CyBear Activity Sheets - Answers

PAGE 7
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2. die
3. sad
4. very happy
5. think something is wrong

PAGE 8
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Bait Phishing Earthworm
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PAGE 10
THUMB NAIL = 3, 12
BOOKMARK = 5, 8
GUEST = 2, 9
SLEEP = 7, 11

Did you know? The CIAS cybersecurity card game, called Cyber Threat Protector, is ideal for students in grades 3-5. It's available through our online store >> CIASMarketplace.com.

Join the Fun & #DefendYourNetwork Today!

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