

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 mor computer systems that are gruped together is caled a network.

2. A router is a hardware devise that transfers data to the corect network.

3. A broadcast sends, or transmits, a mesage too many users at once.

4. A hub is a networck devise that conects multiple computers or other devices together.

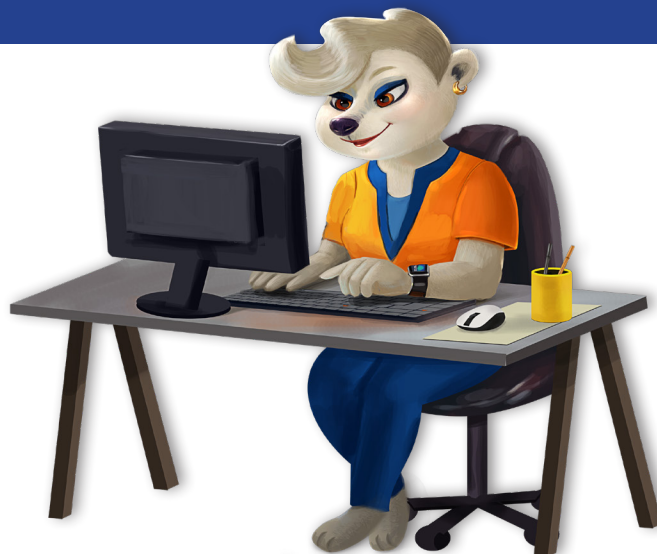
5. An organisation's private network is called an Intranet.

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. _____ Happens when two or more computer systems that are grouped together share information, software and hardware.
WTNOERK
2. _____ A process of transmitting the same message to multiple users simultaneously without the need for acknowledgment from users.
COTRSBAAD
3. _____ An organization's private network.
AITNRNTE
4. _____ A network device that is a common connection point for devices in a network.
UBH
5. _____ The volume of information that can pass through a network for a given period of time.
BDAWIDTHN
6. _____ A hardware device that transfers data packets to the appropriate networks.
RROTUE
7. _____ An Internet Protocol used for secure communication over a computer network.
TPTHS
8. _____ A computer or program that provides other computers with access to shared data files over a network.
AATD ESRVER

Pronouns

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.

(their/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 ____

Proofreading

Read the following messages. Find and correct the 12 errors. The errors can be spelling, punctuation, capitalization, or grammar.

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 kep 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 cloude. The cloud will allow us to acces 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 similiar to my home address, except its 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.



Your/You're

Ada CyBear is writing a blog about two types of cyber threats. Can you help her finish the article below by writing either **your** or **you're** on each blank?

Grammar Clues: *Your* is the possessive form of *you*. Use it when talking about something that belongs to the person with whom you are speaking. *You're* is a contraction of "you are".



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

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

Tic-Tac-Toe

Draw a line through the three computer science terms that are like each other. Your line can be vertical, horizontal, or diagonal.

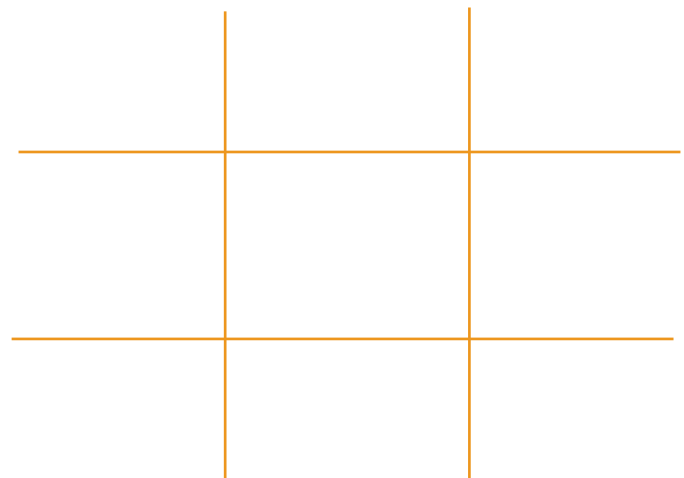
Worm	Snail	Fishing
Bait	Phishing	Earthworm
Snake	Soil	Vishing

Journal	Fixtures	Box
Laptop	Computer	Hardware
Calculator	Hammer	Machine

Master	Programmer	Builder
Planner	Coder	Compiler
Engineer	Software Developer	Creator

Pony	Bronco	Trojan Horse
Flaw	Ransomware	Hoax
Malware	Beetle	Bribe

- **NOW TRY THIS:** Create your own game of tic-tac-toe! Identify three specific jobs available in cybersecurity (and make sure they connect!) and fill in the other squares with other technical, computer-related jobs.



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".

$$315 \div 7 = \underline{\hspace{2cm}}$$

2. Helped devise the first commercial electronic computer.

$$690 \div 3 = \underline{\hspace{2cm}}$$

3. Instrumental in decoding the ENIGMA machine.

$$800 \div 5 = \underline{\hspace{2cm}}$$

4. An Englishman known as the "Father of Computer Science".

$$960 \div 6 = \underline{\hspace{2cm}}$$

5. Considered the first computer programmer.

$$744 \div 4 = \underline{\hspace{2cm}}$$

6. An American mathematician and a Rear Admiral in the U.S. Navy.

$$460 \div 2 = \underline{\hspace{2cm}}$$

7. A co-designer of the TCP/IP protocols and the architecture of the Internet.

$$405 \div 9 = \underline{\hspace{2cm}}$$

8. Recognized as having written instructions for the first computer program in the mid-1800s.

$$558 \div 3 = \underline{\hspace{2cm}}$$



Quotient
and Person:

186 =
Augusta Ada King

230 =
Grace Hopper

45 =
Vint Cerf

160 =
Alan Turing

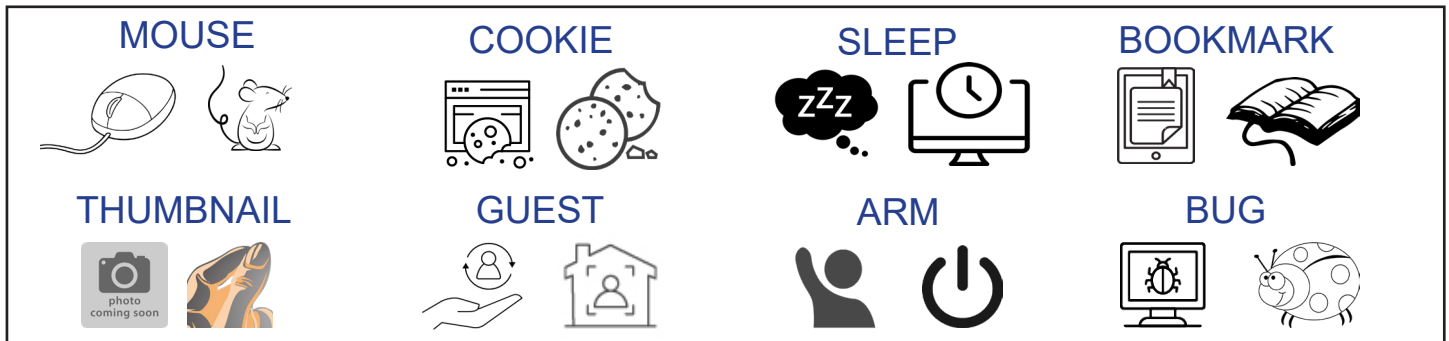
NOW TRY THIS:

Match each CyBear family member to their namesake, which is one of the people listed above, by visiting

*Cultureof
Cybersecurity.com.*

Homonyms

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.



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

PAGE 2

1. Two or **more** computer systems that are **grouped** together is **called** a network.
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3. A broadcast sends, or transmits, a **message** to many users at once.
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5. An organization's private **network** is called an Intranet.

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

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 **an** 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.

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Protect **your** computer systems by updating software patches when prompted by **your** computer!

CyBear Activity Sheets - Answers

PAGE 7

1. overwhelm
2. die
3. sad
4. very happy
5. think something is wrong

PAGE 8

Worm	Snail	Fishing
Bait	Phishing	Earthworm
Snake	Soil	Vishing

Master	Pro-grammer	Builder
Planner	Coder	Compiler
Engineer	Software Developer	Creator

Journal	Fixtures	Box
Laptop	Computer	Hardware
Calculator	Hammer	Machine

Pony	Bronco	Trojan Horse
Flaw	Ransom-ware	Hoax
Malware	Beetle	Bribe

PAGE 9

1. 45 = Vint Cerf King
2. 230 = Grace Hopper Hopper
3. 160 = Alan Turing
4. 160 = Alan Turing King
5. 186 = Augusta
6. 230 = Grace
7. 45 = Vint Cerf
8. 186 = Augusta

PAGE 10

THUMBNAIL = 3, 12
 BUG = 1, 10
 MOUSE = 4, 6
 COOKIE = 13, 15
 5, 8

GUEST = 2, 9
 SLEEP = 7, 11
 ARM = 14, 16
 BOOKMARK =

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!



CIAS

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