Name _____ Date _____

How the Internet Works: Browsers, URLs and Search Engines

Directions: Begin with the internet words and their meanings. The questions after that put those words to work on web addresses, searches and data on the move.

1. Match each internet word to what it means.

Write the letter of the matching answer on each line.

1. _____ Browser
2. _____ Search engine
3. _____ URL
4. _____ Domain name
5. _____ IP address
6. _____ Packet

Choices for question 1

A. A number that identifies a device on the internet so data can reach it

B. One small piece of a message or file as it travels across the internet

C. An app for opening and viewing web pages

D. A website that finds and ranks pages matching the words you type

E. The full address of one web page

F. The part of a web address that names the website

2. Sana sees the web address orbitquill.org/planets/mars at the top of her browser. Which part of the address is the domain name?

A. planets B. orbitquill.org C. mars D. planets/mars

3. Ellie wants pages from the real science site orbitquill.org. Which two of these web addresses lead to pages on that site? Choose 2.

☐ A. orbitquil.org/moon

☐ B. orbitquill.org/stars/sun

☐ C. orbitquill.org.planetpost-hub.net/moon

☐ D. orbitquill.org/moon

☐ E. orbit-quill.org/moon

4. Grace types orbitquill.org into her browser and presses Enter. What has to happen before her browser can ask for the page?

A. Her browser downloads a copy of the whole internet.

B. The domain name is matched to an IP address her browser can use to reach the site.

C. A padlock is added to the page so it can open.

D. A search engine checks that the facts on the page are true.

5. Bella sends a photo to her cousin in another state. How does the photo travel across the internet?

A. As one whole piece along a single wire from Bella to her cousin

B. Saved on a search engine until her cousin searches for it

C. Copied to every computer on the internet at the same time

D. Split into small packets that can take different paths and are put back together at the end

6. In this example, a photo is 6,000 bytes, and each packet carries 1,500 bytes of the photo. How many packets does the photo need?

_____

7. Kenji finds a page about volcanoes with a padlock next to its address. He tells his group, "The padlock means the facts on this page are true." What does the padlock really tell him?

A. The page has been online for many years.

B. His connection to the page is encrypted, which says nothing about whether the facts are true.

C. An expert checked every fact on the page.

D. The page was made by a government office.

8. Marcus searches for how tall a giraffe is. The first result without a Sponsored label is a page called Giraffe Facts. What does its spot at the top tell Marcus?

A. The page was written by a scientist.

B. The search engine ranked it as a strong match for his search, which does not show that its facts were checked.

C. No other page about giraffes exists.

D. The search engine checked that every fact on the page is true.

9. The very top result in Tyler's search has a small label that says "Sponsored." What does that label mean?

A. That page is safe because the search engine owns it.

B. The result is an ad that an advertiser arranged to show.

C. The search engine checked that page and found it the most accurate.

D. That page is the one most people clicked on today.

10. Quinn needs official information from a U.S. government office. Which web address ending can only be used by U.S. government organizations?

A. .com B. .net C. .gov D. .org