Answer the following questions:

1. (**POGIL Activity 1**) How does the geographical distance between the source and destination hosts on a network affect latency?

**Answer**

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| The farther the geographical distance the more hops packets need to make. This increases the ping effectively increasing latency. |

2. What are the benefits of packet switching?

**Answer**

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| It allows for information to travel more quickly from one place to another because it is sending smaller sets of data instead of the entire thing at once. |

3. (**POGIL Activity 2**) **Missing Packets.** What should happen if a packet goes missing? Who (which layer) would handle this? What action would they have to take? And what additional information would be needed in the packet in order to handle it?

**Answer**

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| If a packet is missed it needs to be re routed by the internet layer and then handed off to the link layer. |

4. (**POGIL Activity 2**) **Security/Privacy.** As the packets are being transmitted through the network, can people other than the sender and receiver read the messages? What methods can we use to protect the message?

**Answer**

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| Other people can intercept packets. A way to secure these messages would be to encrypt them so others intercepting the message can not decrypt the packet. |