Absolute Value Word Problems

Answer each question. Use what you know about absolute value!

The table below shows the low temperatures over the last few days in Oak Creek.

Day	Low temperature (°F)
Wednesday	6
Thursday	-4
Friday	-2



- 1. On which day was the low temperature the coldest? **Thursday**
- 2. On which day was the low temperature furthest from zero? Wednesday
- 3. The low temperature on Monday was 1°F, and the low temperature on Tuesday was -3°F. On which weekday was the low temperature closest to zero?

Monday

Devin went on a cross-country road trip last summer. This table shows the elevations of some of the cities he visited.

1. Which city is closest to sea level?

Valley Ridge

2. Which city has the highest elevation?

Collinsville

3. Devin also went to Harrisburg, which has an elevation of 18 meters. Which city in the table has the closest elevation to Harrisburg?

Collinsville

City	Elevation (m)
Densker	-45
Valley Ridge	-19
Collinsville	23



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Eleanor has a new game on her tablet. In the first level of the game, Eleanor gains points when she picks up different coins, but she loses points if she runs into a scorpion or a snake.

1. Which of these items causes the greatest change in points?

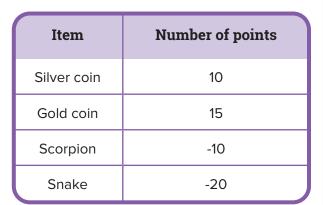
Snake

2. Which of these items causes the greatest increase in points?

Gold coin

3. In the next level, Eleanor can also gain 20 points if she picks up a treasure chest. Does this new item cause the greatest change in points? Explain your reasoning.

No. Both the treasure chest and the snake cause a change of 20 points, so the treasure chest does not cause the greatest change in points.





An environmental scientist is measuring changes in the water level of a local stream. This table shows the changes she recorded during the last few months.

- 1. During which month did the water level decrease the most?
 - June
- 2. During which month did the water level change the most? May

Month	Change in water level (in.)
May	5
June	-3
July	3.5
August	-1.5

3. The scientist recorded the change in water level in September, and that value was the greatest change so far. What is one possible value for the change in water level in September? Explain your reasoning.

STUDENT ANSWERS WILL VARY.

6 inches. The greatest change from the table is 5 inches, so 6 inches would be greater than that value.



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Party Palace is having a sale on different seasonal decorations. This table shows the items that are on sale.

1. Which item has a greater discount: the fall wreath or the plastic pumpkin?

Fall wreath

2. Which sign has a greater discount?

"Welcome Fall!" sign

Item	Discount from original price	*
Fall wreath	-\$1.99	
Plastic pumpkin	-\$1.29	
"Welcome Fall!" sign	-\$5.99	
"Fall is Here!" sign	-\$5.25	

3. Party Palace also has a fall tablecloth on sale for \$5.30 off. Is that greater than the discount on the "Fall is Here!" sign? Explain your reasoning.

Yes. Since 5.30 is greater than 5.25, the discount on the fall tablecloth is greater than the discount on the "Fall is Here!" sign.



A scuba diver went on a dive this afternoon. This table shows his depth every 15 minutes.

Time	Depth (ft.)
1:00 P.M.	8
1:15 P.M.	30
1:30 P.M.	48
1:45 P.M.	29



- Was the scuba diver deeper at 1:00 P.M. or 1:15 P.M.?
 1:15 P.M.
- At what time was the scuba diver the deepest?1:30 P.M.
- **3.** Around what time do you think the scuba diver started coming back up toward the water's surface? Explain your reasoning.

STUDENT ANSWERS WILL VARY.

Around 1:30 P.M. Since the scuba diver's depth at 1:30 P.M. is greater than his depth at 1:45 P.M., he had to start going back up toward the water's surface during that time frame.