Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Radical Rocks**



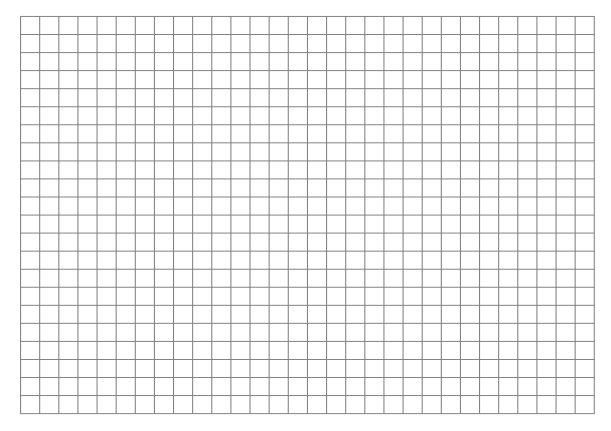
[This Photo](http://commons.wikimedia.org/wiki/file:rock_climbing_vector.svg) by Unknown Author is licensed under [CC BY-SA](https://creativecommons.org/licenses/by-sa/3.0/)

You and your friends are planning an adventure at Radical Rocks for a fun-filled day of rock climbing. The cost is $8 per hour plus $13 for full-day equipment rental. The rental includes a harness, shoes, belay device and a chalk bag.

**Write an equation to represent your total cost for the day.**

1. **You found an online coupon that offers a $6.00 discount on the full-day equipment rental. How does this change your equation above? Write a new equation.**

1. **Your friend received a coupon in the mail offering a 40% discount off the hourly rate? How does this change your original equation above? Write a new equation.**
2. **Graph the equations from Questions 1 and 2 above. Choose a scale and label the axes.**



1. **Which coupon offered the better deal? Use the graph to support your conclusion.**
2. **You have a total of $35.00 to spend. How many hours can you purchase for the day?**

* **Find the number of hours for the equations in Question1 and Question 2 on the previous page.**
* **Does this support your conclusion from Question 4? Justify your answer.**

1. **Refer to your graph, did the two lines intersect?**

**If so, what is the approximate coordinate for the point of intersection?**

**What does this point represent within the context of this problem?**