

TI-Nspire Technology Lesson

Unit 4: Interpolating and Extrapolating


On your calculator, press  > **7: My Documents**, then open file **u04_199**.

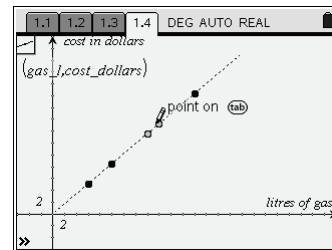
Interpolating and Extrapolating

The data on page 1.3 represents the cost of gas for 5 customers at a gas station. It is graphed on page 1.4.


| | gas_l | cost_dollars |
|---|-------|--------------|
| 1 | 6 | 5.1 |
| 2 | 10 | 8.5 |
| 3 | 16 | 13.6 |
| 4 | 18 | 15.3 |
| 5 | 24 | 20.4 |

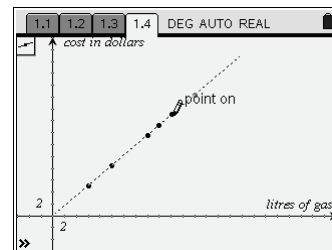
1. Construct a line through the data.

- Press , then select **6: Points & Lines > 4: Line**.
- Click on 2 data points.




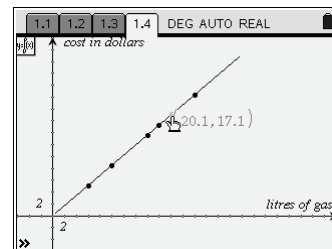
2. Construct a point on the line.

- Press , then select **6: Points & Lines > 2: Point On**.
- Click on the line.



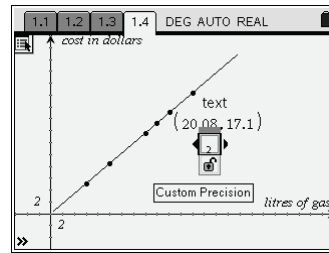
3. Display the coordinates of the point.

- Press , then select **1: Actions > 7: Coordinates and Equations**.
- Double-click on the point.



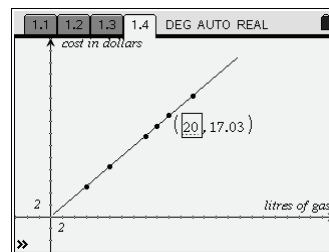
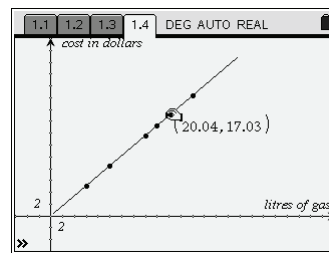
4. Adjust the number of decimal places displayed.

- Press **(menu)**, then select **1: Actions > 4: Attributes**.
- Click on the x -coordinate of the point.
- Press the left arrow once to set the custom precision to 2, then press **(enter)**.
- Click on the y -coordinate of the point. Set the custom precision to 2, then press **(enter)**.
- Press **(esc)**.



5. Determine the cost of 20 L of gas.

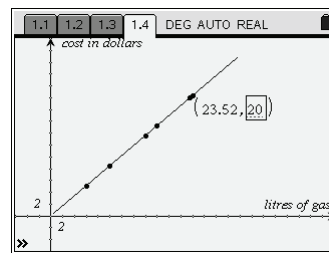
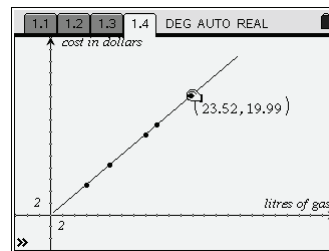
- *Method 1:*
Drag the point until the x -coordinate is close to 20.
Press **(esc)** to release the point.
- *Method 2:*
Triple-click on the x -coordinate of the point, then change its value to 20 and press **(enter)**.



The cost of 20 L of gas is: _____

6. Determine the volume of gas that can be bought for \$20.00.

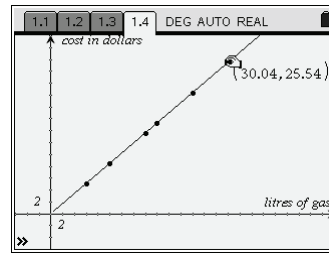
- *Method 1:*
Drag the point until the y -coordinate is close to 20.
- *Method 2:*
Change the y -coordinate to 20.



The volume of gas that can be purchased for \$20.00 is:

7. Determine the cost of 30 L of gas.

- *Method 1:*
Drag the point until the x -coordinate is close to 30.



- *Method 2:*
Change the x -coordinate to 30.

The cost of 30 L of gas is: _____

