

1. At Store A, a computer is regularly priced at \$1299.00.
It is on sale for 20% off the regular price.

At Store B, the same computer is regularly priced at \$1549.00. It is on sale for 30% off the regular price.

Which store offers the lower sale price?

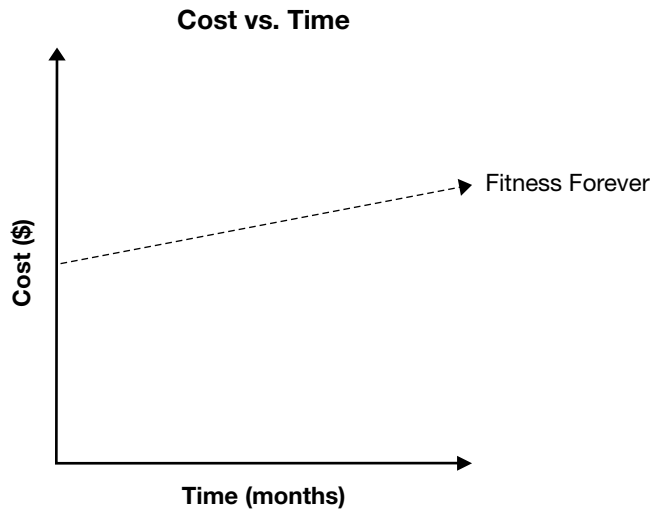
How much less will that store's price be than the other store's?

Justify your answer.

2. The Fitness Forever gym charges a one-time membership fee plus a monthly fee. The Heavy Lifters gym charges a lower membership fee than Fitness Forever and the same monthly fee.

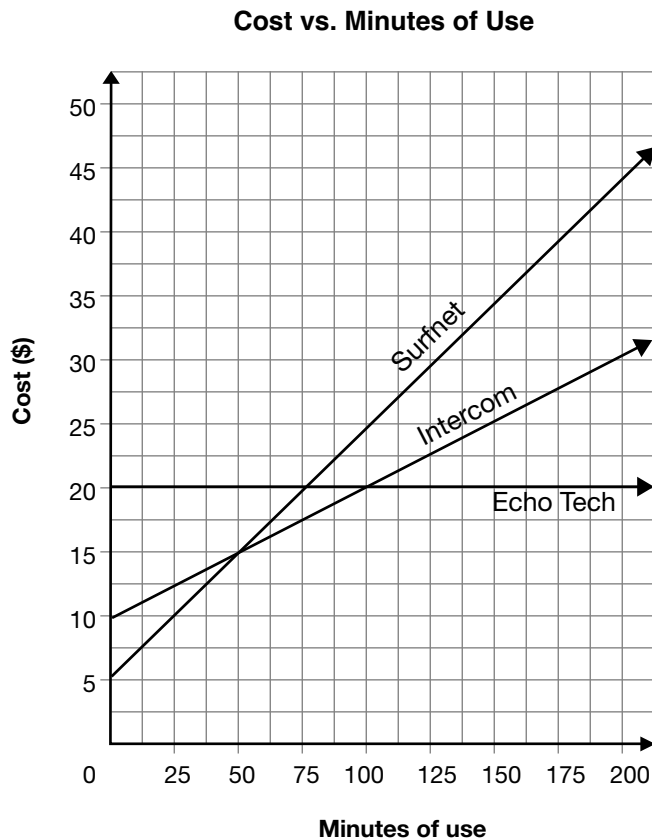
The graph shows the cost related to time for a Fitness Forever member.

Sketch a possible cost vs. time graph for a Heavy Lifters member on the same set of axes. Justify your answer.



3. The graph shows the relationship between total cost and minutes of use for three Internet companies.

Tenisha wants to sign up with one of the companies and she wants to pay as little as possible. Her choice will depend on her minutes of use.

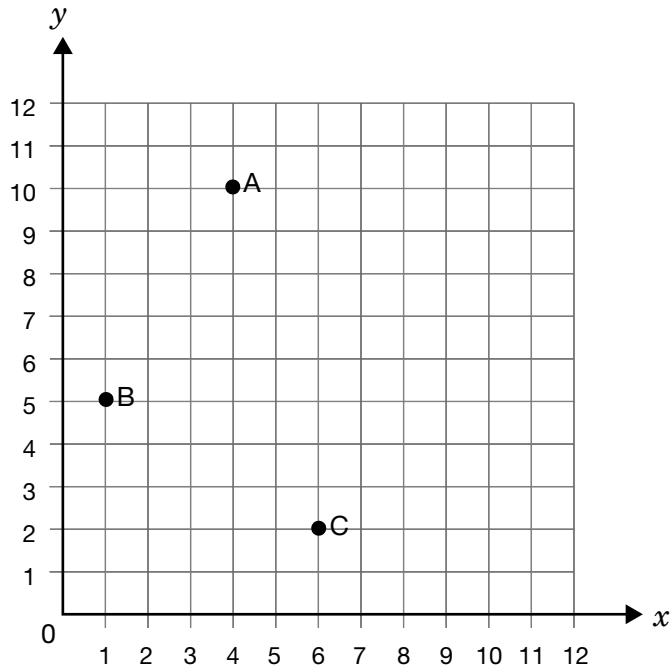


Determine which company Tenisha should sign up with. Include details about minutes of use in your explanation.

4. ABCD is a square. Three vertices are A(4, 10), B(1, 5) and C(6, 2). Draw the fourth vertex, D, on the graph below.

State the coordinates of D.

Justify your answer.



5. Determine the volume of a square nut with the dimensions shown.

The length and width of the nut are both 20 mm.

The radius of the hole is 7 mm.

The depth of the nut is 1.2 mm.

Show your work.

