QQ2

The problems below are randomized and refreshable. Once you solve them, you can reset them in order to get a new set of values which you can solve again, in case you want to get more practice.

Linear Algebra

0 points possible (ungraded)

Consider a line in the x,y plane with a slope of 6.0 and a y-intercept of 37.

Find an expression for this line in the following form: $(A) * x + (B)$, where A and B are numbers that may be positive or negative.

When you type your answer in the box below, remember to use x as a variable and * as the multiplication sign.

6*x+37

✔ **Answer:** 6.0*x+37

$6 \cdot x + 37$

Explanation

Since the slope is 6.0, changing x by 1, will change Y by 6.0. Because of this, 6.0 should be multiplied by x. The intercept is 37 and it remains unchanged for all x so it will simply be added to the equation. The answer, then, is $(6.0) * x + (37)$.

To plot this line in Wolfram|Alpha, enter:

```
plot (6.0)*x+(37)
```

To plot this line in Cymath, enter:

```
graph y=(6.0)*x+(37)
```

In this line, what is the value of y that corresponds to x=70?

457

✔ **Answer:** 457.0

$$457$$

Explanation

To solve this manually, you simply have to plug in x into the equation $y = (6.0) * x + (37)$. Since $y = 457.0$, the answer is 457.0.

To solve this in Wolfram|Alpha, enter:

```
y=(6.0)*x+(37), x=(70)
```

To solve this in Cymath, enter:

```
y=(6.0)*x+(37), x=(70)
```

In this line, what is the value of x that corresponds to y=-126?

-163/6

✔ **Answer:** -27.17

$$-\frac{163}{6}$$

Explanation

To solve this manually, you simply have to replace y with -126 in the equation $y = (6.0) * x + (37)$, and solve for x. You can solve for x by subtracting 37 from both sides and then dividing both sides by 6.0. You should get:

$$x = ((-126) - (37))/(6.0) = -27.17$$

To solve this in Wolfram|Alpha, enter:

```
y=(6.0)*x+(37), y=(-126)
```

...and press Enter. Click *Approximate form* if needed.

To solve this in Cymath, enter:

```
y=(6.0)*x+(37), y=(-126)
```

...and click *Solve!*

Submit You have used 1 of 3 attempts

Answers are displayed within the problem

Didgeridoos

0 points possible (ungraded)

Adina makes handcrafted traditional didgeridoos for collectors around the world. A didgeridoo is a musical instrument that was developed by native Australians.

The variable cost for Adina to make a handmade didgeridoo is $ 37 Australian dollars, or AUD.

Adina's setup cost is $ 15 AUD. (This setup cost applies only once.)

Given the information above, create an expression for cost (in AUD) for Adina's production of didgeridoos. Use \(x\) to indicate the number of didgeridoos that Adina makes, and don't forget to use * as the multiplication sign. Omit any currency symbol (or the AUD label) in your answer.

x*37+15 ✔

\(\)

If Adina was to make 6 didgeridoos, how much would this cost her? Omit any currency symbol or AUD in your answer.

237 ✔

\(\)

Adina's competitor, Jarli, also makes traditional didgeridoos for collectors around the world. His didgeridoos are handcrafted at his small shop.

The variable cost for Jarli to make a didgeridoo is $ 9 (AUD)

Jarli's set up cost is $ 122 (AUD).

Given the elements above, create an expression for cost (in AUD) for Jarli. Use \(x\) to indicate the number of didgeridoos that Jarli makes. Omit any currency symbol or AUD in your answer.

x*9+122 ✔

\(\)

If Jarli were to make 6 didgeridoos, how much would this cost him (in AUD)? Omit any currency symbol or AUD in your answer.

176 ✔

\(\)

At what number of didgeridoos would it cost Jarli as much as it would cost Adina to make a didgeridoo? Round to 2 decimal places. (Hint: Set the cost equations equal to each other and solve for \(x\))

3.821429 ✔

\(\)

Submit You have used 2 of 3 attempts

✔ Correct

Questions, comments and suggestions about this section

If you have any questions, comments or suggestions about this section, please use the "Add a Post" button in the discussion forum below. Your post will be indexed in the right category and it will be easier for the staff to answer it!

If you have a question, classify your post as a "question" (instead of "discussion"), since we try to review those post first.

Discussion

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Topic: Week 1 / Lesson 2, Quick Question 2

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profit equation 3

In the lesson it is stated that the profit equation is "profit = f(volume)= (r-c)*v+d " d:fixed cost . In my min...

- Resetting questions for additional practice
  How do we go about resetting the questions for additional practice problems? Please advise. 4
- QQ2 Linear Algebra statement Meaning
  Hi Does the statement in part one of the QQ2: "...and a **y-intercept of 92**", means a **negative interc... 3

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