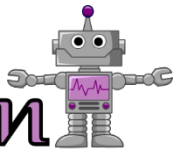
STEM-ersion



Name _____

Date _____

w/ Solving Systems of Equations with Substitution

Accountant

Jami is an accountant at a mid-sized firm and has been hired by an investor to make recommendations about five local small businesses. These businesses are all in debt, but the investor sees potential in each idea. The investor wants to know when each company is projected to break even and would prefer companies that will turn a profit within the next 24 months. The investor secured the expense and revenue reports of each of the businesses to review.

Jami has created linear models to project the Cost and Revenue of each business and now must use the results to finalize her findings. In each equation x represents months. What should her recommendation be? How do the businesses rank?

	Appster (Technology Start-up)	Enrich (Education Program)	Green Team (Alternate Energy)	Southwest Fusion (Restaurant)	Zoo to You (Children's Parties)
Cost	y = 13124 + 3190x	y = 69419 + 15384x	y = 178420 + 64421x	y = 42891 + 15387x	y = 5420 + 9539x
Revenue	y = 3586x	y = 21954x	y = 68419x	y = 13174x	y = 10381x

Evidence

Use this space to make any calculations and show work.

Analysis of the evidence

Interpret the Evidence. What does it mean?

Conclusion or Recommendation

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Evidence

Use this space to make any calculations and show work.

Appster is projected to break even in 33.141 months.

Enrich is projected to break even in 10.566 months.

Green Team is projected to break even in 44.627 months.

Southwest Fusion is projected to break even in -19 months!!! They will never break even.

Zoo to You is projected to break even in 6.437 months.

Analysis of the evidence

Interpret the Evidence. What does it mean?

Answers will vary.

Students could rank the break even points...

They could describe the break even points...

Conclusion or Recommendation

If the investor desires to break even within 24 months, Enrich or Zoo to You seems to be the best bet.

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