

Activity 1

The Grade 11 learners at Naledi High School are going on an outing to Sterkfontein Caves in the Cradle of Humankind.

A bus is needed to transport the learners. The cost of a 45-seater bus for the trip is R3 200. This cost is split between the learners who decide to go on the trip. There are 43 learners in the grade and two teachers will accompany them.

The visit to the caves costs R125 per learner.

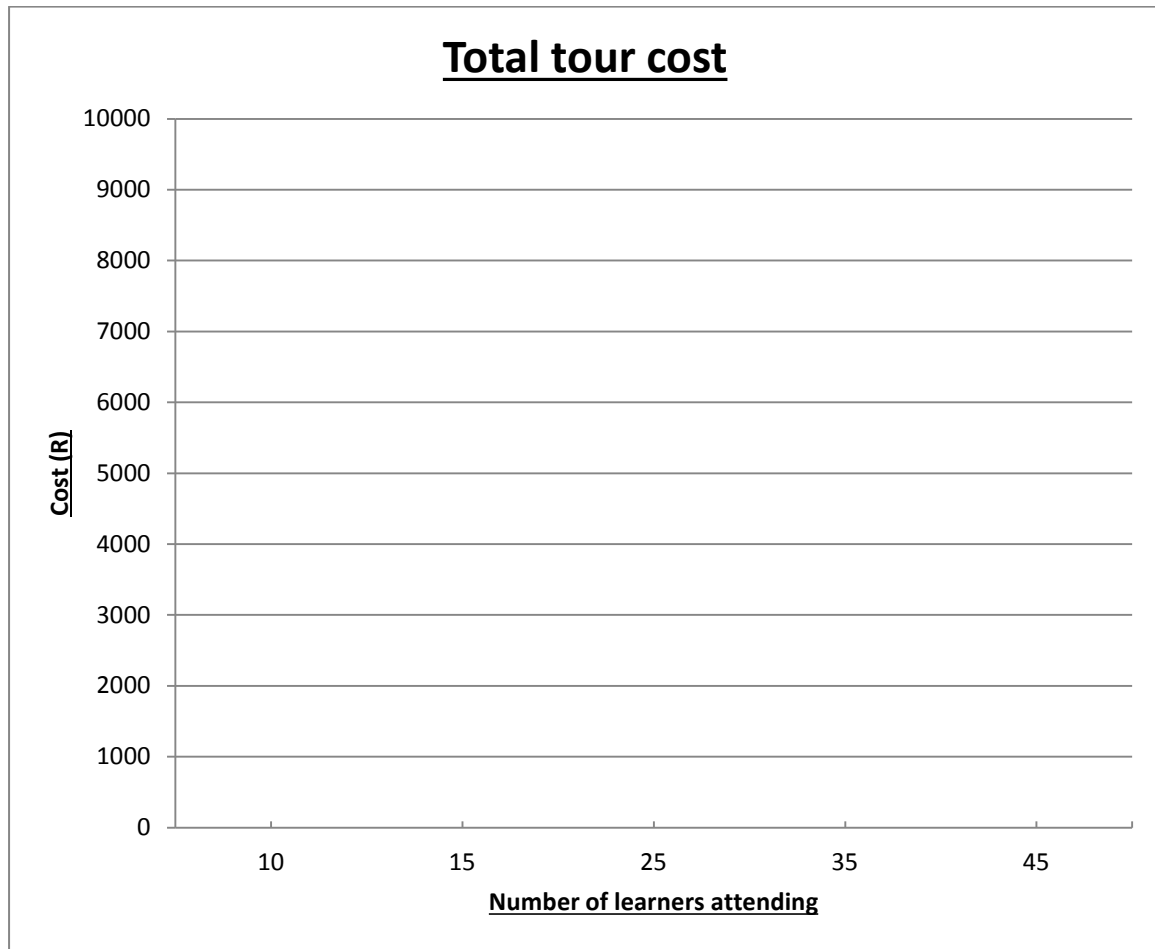
- Which cost represents a fixed cost for the tour? Explain why.
- Which cost represents a variable cost for the tour? Explain why.
- Complete the table below showing the cost per learner for the bus based on the number of learners going on the tour.

Number of Learners	10	15	25	35	45
Cost / learner (R)					

- What type of relationship is shown in the table? Explain your answer.
- Write an equation that can be used to calculate the total cost of the tour, for any number of students attending. Let the number of students = x and the total cost = y .
- Complete the table below, using your equation, showing the total cost of the tour for various numbers of learners.

No. Learners (x)	10	15	25	35	45
Total Cost (R) (y)					

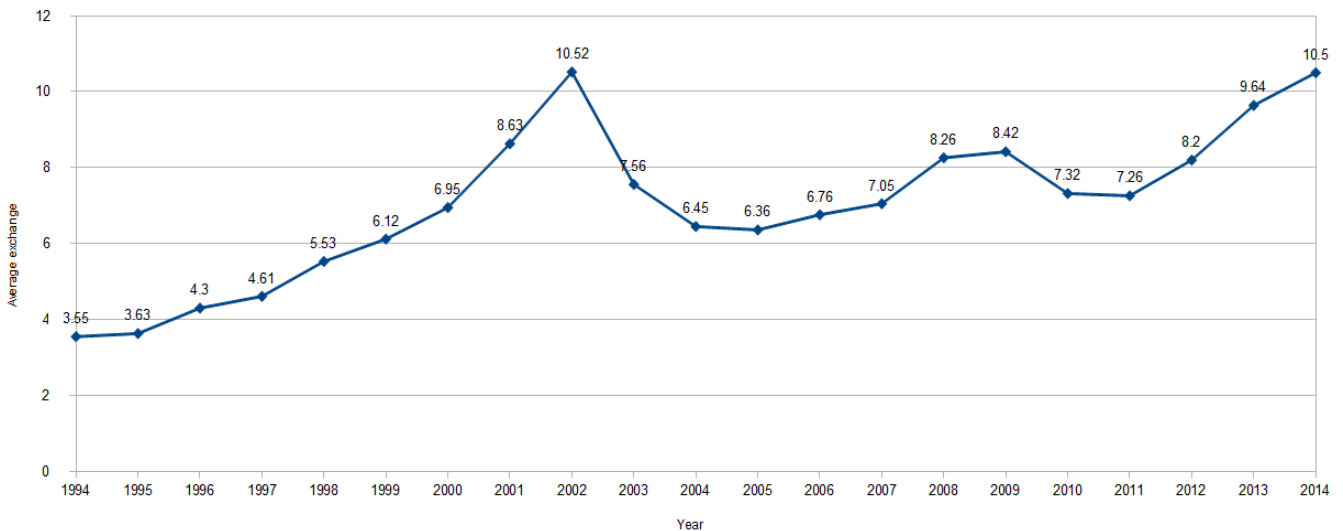
- Use your table to complete the line graph on the next page.



8. 43 learners decide to go on the tour. Calculate the amount each learner will pay, rounded UP to the nearest whole.

Activity 2

Study the graph below, which shows the rand – dollar exchange rates over a 20-year period, and answer the questions that follow. The values given on the graph are the rand amounts needed for \$1.



1. In which year was the rand the weakest? What was the exchange rate that year?
2. In which year was the rand the strongest? What was the exchange rate that year?
3. Describe the general trend in the rand-dollar exchange rates over the 20-year period.
4. What type of relationship is shown on this graph? Explain your answer.
5. Is there a dependent variable in the context of this graph? Explain your answer.
6. Complete the table below using information from the graph.

Year	1994	1998	2002	2006	2010	2014
Cost of \$1 in Rand						

Activity 3

Sanele wants to invest her birthday money so that she has enough money to go on a holiday to Thailand. She needs R4 000 for the trip and has R3 200 to invest. She needs to choose between the following options:

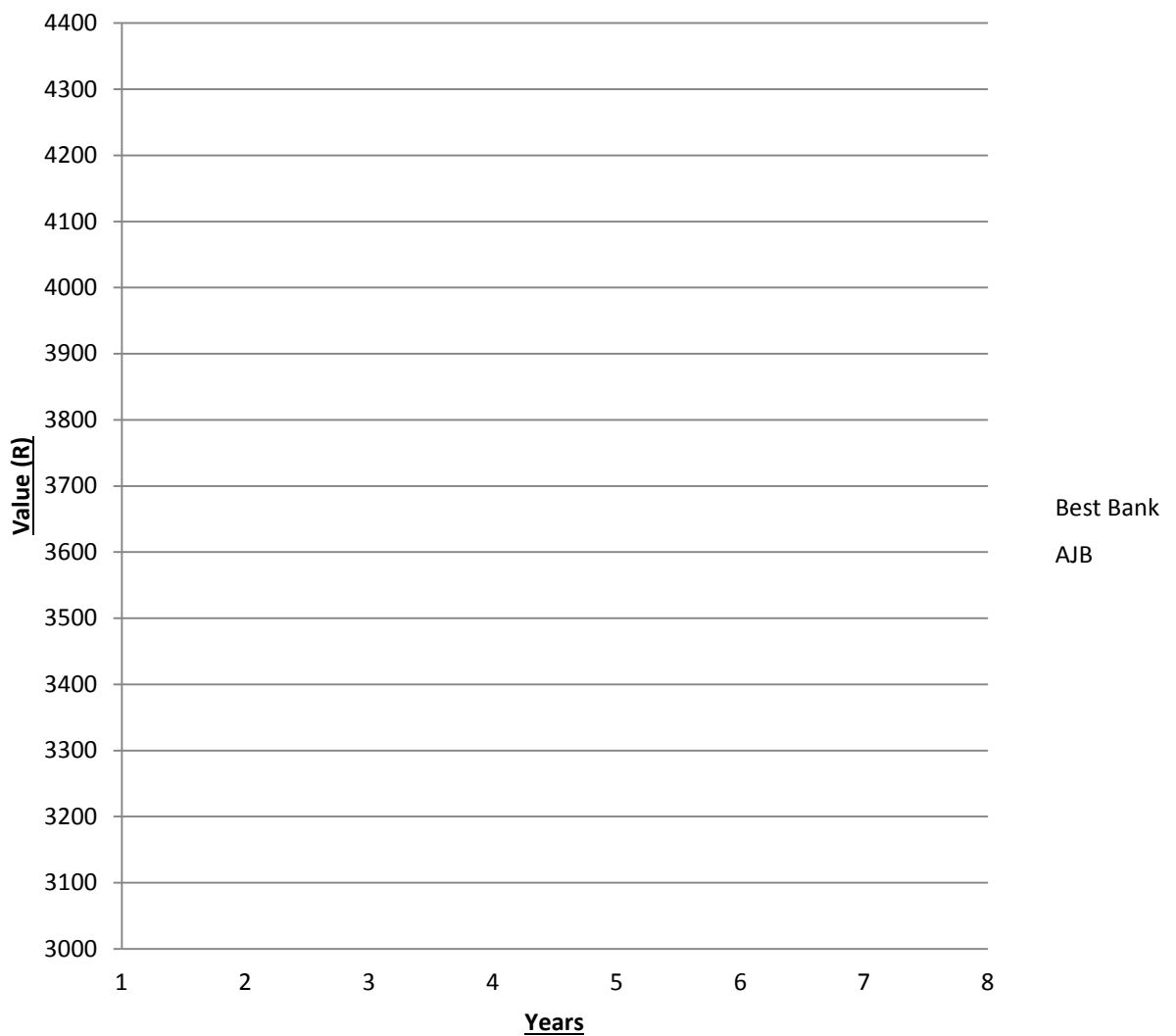
Best Bank	4% simple interest per annum (per year)
AJB	3,5% compound interest p.a. compounded annually

1. The table below shows what the value of her money would be with each option after a certain number of years. Complete the table.

	1	2	3	4	5	6	7	8
Best Bank	R3 328	R3 456	R3 584	R3 712				
AJB	R3 321.60	R3 447.82	R3 578.84	R3 714.84				

2. Draw two line graphs on the same set of axes showing the information in the table. Use a key.

Investment options



- Which investment option reaches her goal amount first?
- After how many years are the two investments almost the same?
- Which investment shows a constant relationship? Explain your answer.
- Tell Sanele which investment option she should choose and why.