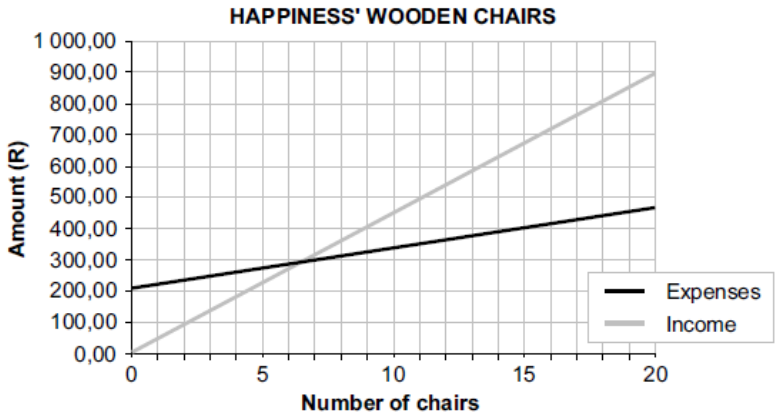
GRAPHS

Exercise

2. Happiness makes wooden chairs for a living. The graph below shows his income and expenses for a month.



2.1 Use the graphs to answer the following questions.

2.1.1 Estimate how much Happiness pays in fixed expenses.

2.1.2 Give TWO examples of fixed expenses that Happiness might have.

2.2 How much does Happiness sell his chairs for?

2.3 How many chairs does Happiness need to sell in order to break even?

2.4 How much income will Happiness receive if he sells 12 chairs?

2.5 How much profit will Happiness make if he sells 15 chairs?

2.6 Which graph(s) would be affected if Happiness increased the selling price of his chair? Explain your choice.

Answers

2.1.1 ≈ R205

2.1.2 Rent, salaries/wages, loan repayments, vehicle repayments, insurance, etc.

2.2 Reading from the graph:
2 chairs cost R100,00
→ 1 chair costs R100,00 ÷ 2 = R50,00

2.3 According to the graph, the break-even point (the point where the graphs intersect) is 6½ chairs. This means that Happiness must sell more than 6 chairs – i.e. 7 chairs – in order to break even.

2.4 Income from 12 chairs ≈ R540,00

2.5 Profit from selling 15 chairs = income - expenses
≈ R680,00 - R400,00
≈ R280,00

2.6 The Income graph would be affected and would become steeper because his income per chair would be more. The Expenses graph would not be affected as the only thing that is increasing is the selling price (and hence the income).