Grade 9 Mathematics Worksheet

Finance mathematics

Questions:

1.

Samantha is interested in buying a new flat screen television set. At Betty's Bargains the television is priced at a whopping R12 999 and it is on sale at the moment with a discount of 15%.

At Serious Sisters Specials the same television is on display for R14 999 with a discount of 30%.

Prepare two different calculations for each scenario that you can use to advise Samantha on where to purchase her new TV.

2. In January 2007, the maintenance for a school was budgeted at R300 000 out of a budget of R5 000 000. In January 2008, the figure was R312 000 out of a budget of R5 200 000. Inflation between 2007 and 2008 was 8%. Did the maintenance costs go up, reduce or stay the same? Explain.

Solution

1. Betty's Bargains:

   • $12999 \times 0,85 = R11049,15$

   • $12999 - 0,15(12999) = 12999 - R1949,85 = R11049,15$

   Serious Sister's Specials:

   • $14999 \times 0,7 = R10499,30$

   • $14999 - 0,3(14999) = 14999 - 4499,70 = R10499,30$

   She should buy her TV from Serious Sister's Specials

2.

	Maintenance	Budget
2007	R300 000	R500 000
2008	R312 000	R5 200 000

   % Increase:

   Maintenance: $\dfrac{12000}{300000} = 4\%$

   Budget: $\dfrac{200000}{5000000} = 4\%$

   If inflation is 8%, and the increase in maintenance costs is 4% then the maintenance costs came down by 4%

This calculation can be done in two different ways. Educators should encourage the learners to use both, but it is not desirable to ask for two different approaches in an assessment item. This is because learners abandon methods that are time consuming to perform and usually go for those algorithms that they find to work for them.

For question 2 there is no suggested, straight forward way to answer the question. Learners have to choose their own solution path, and present their own argument for the situation. That makes the question much more difficult in level and it operates on a completely different strand.