

Paul Robbins training and consultancy

Credit Management

Calculating Simple Interest Rates

Exercise 1 **Model Answer**

Question 1

The business you work for is considering offering a 2% prompt payment discount in exchange for payment of invoices in 7 days rather than the 28 days standard credit period. (You should assume that all customers will take advantage of the prompt payment discount offered).

Calculate the annual cost of discount as a percentage to two decimal places using the simple interest rate calculation.

$$\text{Annual Cost of Discount percentage} = [d / (100 - d)] \times [365 / (N - D)] \times 100$$

Where:

d = prompt payment discount percentage

N = normal settlement period in days

D = settlement period for early payment in days

$$= [2 / (100 - 2)] \times [365 / (28 - 7)] \times 100$$

$$= \underline{\underline{35.47\%}}$$

Question 2

The business you work for is considering offering a 1% prompt payment discount in exchange for payment of invoices in 10 days rather than the 31 days standard credit period. (You should assume that all customers will take advantage of the prompt payment discount offered).

Calculate the annual cost of discount as a percentage to two decimal places using the simple interest rate calculation.

$$= [1 / (100 - 1)] \times [365 / (31 - 10)] \times 100$$

$$= \underline{17.56\%}$$

Question 3

The business you work for is considering offering a 3% prompt payment discount in exchange for payment of invoices in 14 days rather than the 60 days standard credit period. (You should assume that all customers will take advantage of the prompt payment discount offered).

Calculate the annual cost of discount as a percentage to two decimal places using the simple interest rate calculation.

$$= [3 / (100 - 3)] \times [365 / (60 - 14)] \times 100$$

$$= \underline{24.54\%}$$

Question 4

The business you work for is considering offering a 1.5% prompt payment discount in exchange for payment of invoices in 7 days rather than the 30 days standard credit period. (You should assume that all customers will take advantage of the prompt payment discount offered).

Calculate the annual cost of discount as a percentage to two decimal places using the simple interest rate calculation.

$$= [1.5 / (100 - 1.5)] \times [365 / (30 - 7)] \times 100$$

$$= \underline{24.17\%}$$

Question 5

The business you work for is considering offering a 1% prompt payment discount in exchange for payment of invoices in 5 days rather than the 31 days standard credit period. (You should assume that all customers will take advantage of the prompt payment discount offered).

Calculate the annual cost of discount as a percentage to two decimal places using the simple interest rate calculation.

$$= [1 / (100 - 1)] \times [365 / (31 - 5)] \times 100$$

$$= \underline{14.18\%}$$

Question 6

The business you work for is considering offering a 0.5% prompt payment discount in exchange for payment of invoices in 14 days rather than the 31 days standard credit period. (You should assume that all customers will take advantage of the prompt payment discount offered).

Calculate the annual cost of discount as a percentage to two decimal places using the simple interest rate calculation.

$$= [0.5 / (100 - 0.5)] \times [365 / (31 - 14)] \times 100$$

$$= \underline{10.79\%}$$