

Set 1 **Name:** _____

Roll No.: MA26M _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

Set 2

Name: _____

Roll No.: MA26M _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

Set 3

Name: _____

Roll No.: MA26M _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

Set 4

Name: _____

Roll No.: MA26M _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 6 Roll No.: MA26M

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 8 Roll No.: MA26M

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 12 Roll No.: MA26M

Trace it for: $x = 2, \quad n = 6$

(a) Flow chart

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 13 Roll No.: MA26M

Trace it for: $n = 6, \quad r = 3$

(a) Flow chart

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 17 Roll No.: MA26M

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 21 Roll No.: MA26M

Trace it for: coefficients $2, -3, 0, 5$ at $x = 2$

(a) Flow chart

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name Set 27 Roll No.: MA26M

Trace it for: trace the first 8 letters only

(a) Flow chart

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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Name _____ Set 28 _____ Roll No.: MA26M _____

Question. Write a C++ program to compute the sum of the first n terms of a geometric progression with first term a and common ratio r , and verify it against the formula for $r \neq 1$.

Trace it for: $a = 2$, $r = 3$, $n = 5$

Answer all three parts. (a) the flow chart, below. (b) the trace table, overleaf. (c) the program, on the machine.

(a) Flow chart

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

[illegible]

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

Iteration	Loop variable	Condition (T/F)				Printed / Remarks
<i>before loop</i>	—	—				

(c) **Final answer produced by the program:** _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____

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(b) **Trace table.** Label the blank columns yourself with the variables your program uses.

[illegible]

(c) Final answer produced by the program: _____

(d) How many times did the body of the loop run? _____ What is the value of the loop variable when the loop stops? _____