

Calculus

M 22 October 2012

RESET THE
SESSION

SET THE
PARTICIPANT
LIST

PLUG IN THE
RECEIVER

Boxed answers agree with
TurningPoint answers

Points agree with
TurningPoint points

Points total to 100

Topics covered are in bounds

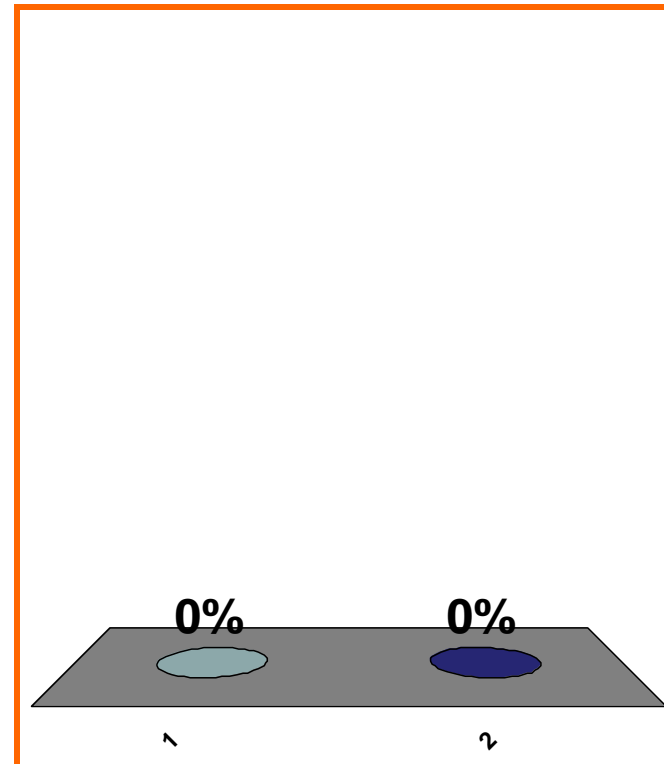
QUIZ
FOLLOWS

T or F:

At **any** critical number is
a local max or a local min.

(a) True

(b) False



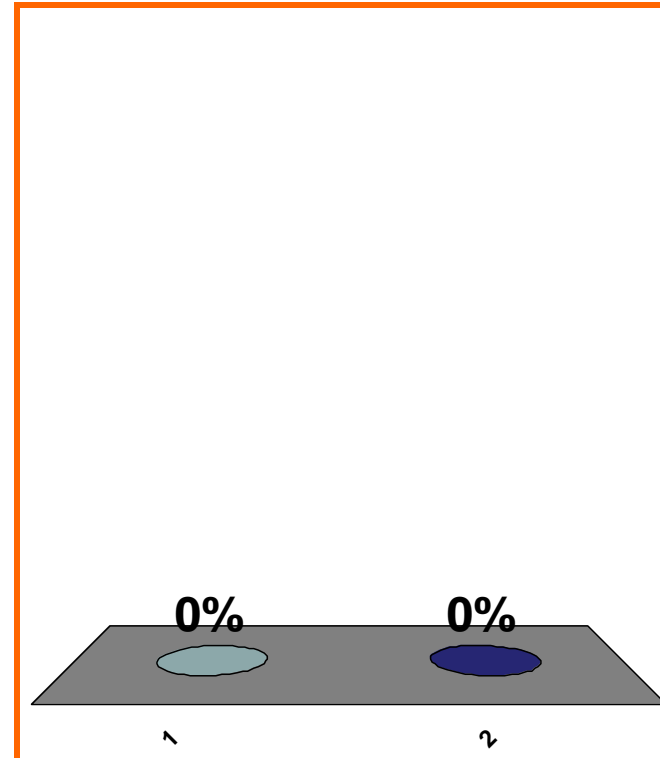
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

T or F:

Any local max or local min is at a critical number.

(a) True

(b) False



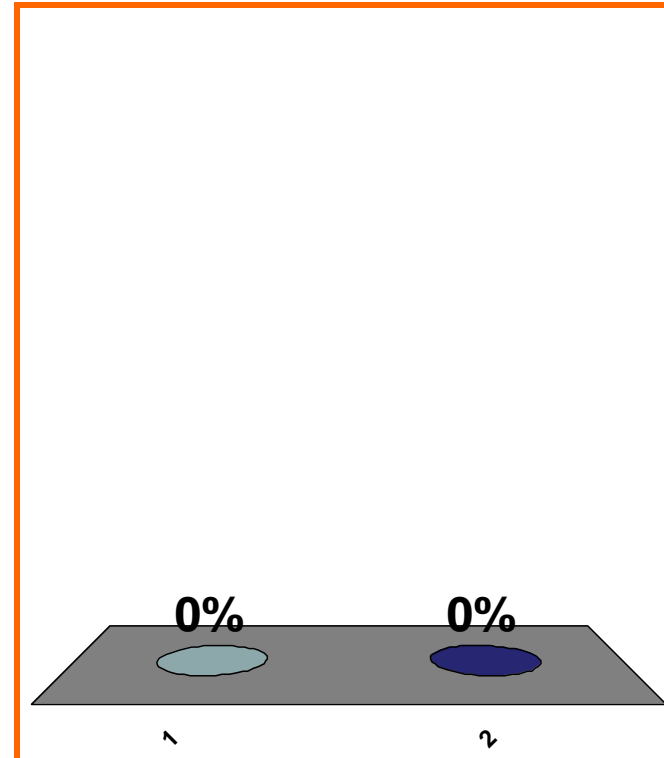
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

T or F:

Any global max or global min is at a critical number.

(a) True

(b) False

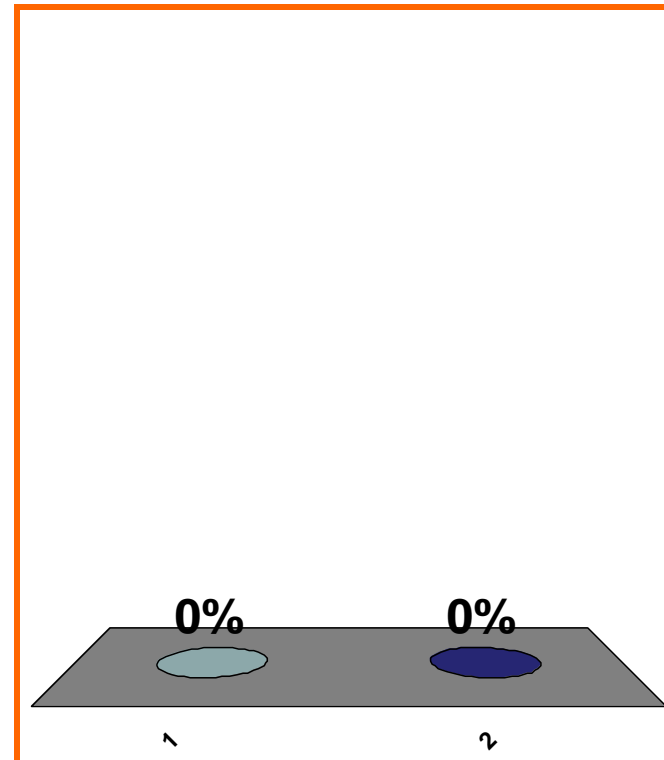


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

T or F:
Any local max is
a global max.

(a) True

(b) False



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

0 of 5

Topic 0450

10 pts

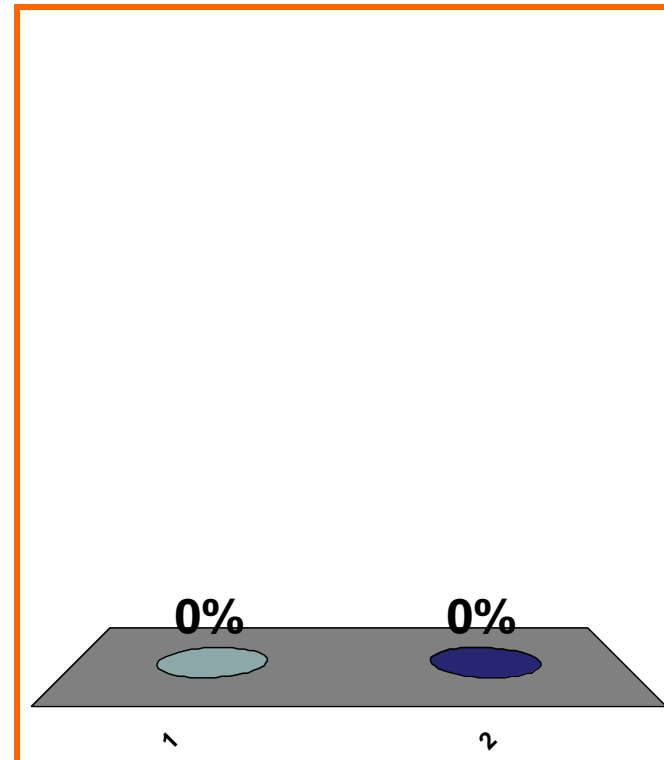
8

T or F:

Any global max is a local max.

(a) True

(b) False



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

$$g = f^{-1}$$

$$f(6) = 9, f'(6) = 1/4$$

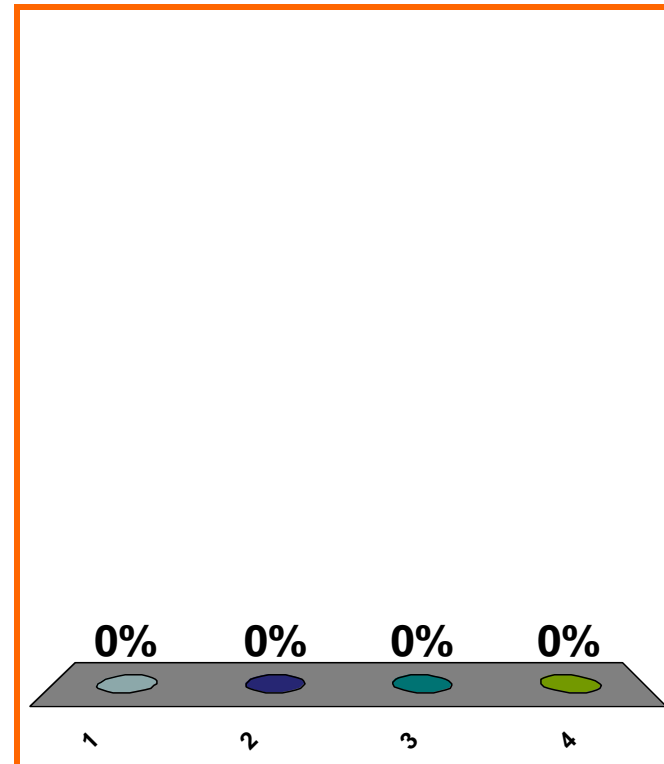
$$g'(9) = ??$$

(a) 1/2

(b) 4

(c) not enough information

(d) none of the above



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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$$f(8) = 7, \quad f'(8) = -4$$

$$g = f^{-1}$$

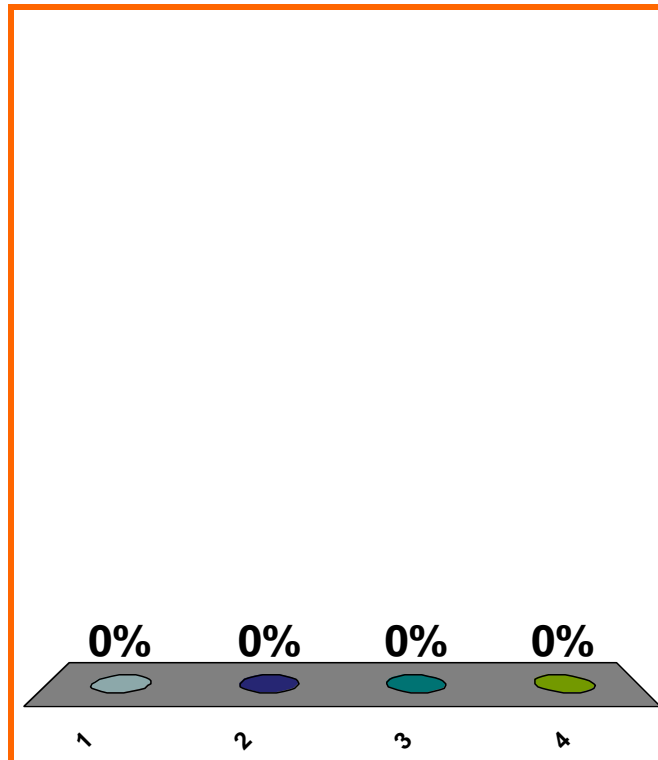
$$g(7) = ??, \quad g'(7) = ??$$

(a) 8, $-1/4$

(b) 8, $1/8$

(c) $1/7$, $-1/4$

(d) none of the above



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

0 of 5

Topic 0440

10 pts

11

$$g = f^{-1}$$

$$f(6) = 9, f'(6) = 1/4$$

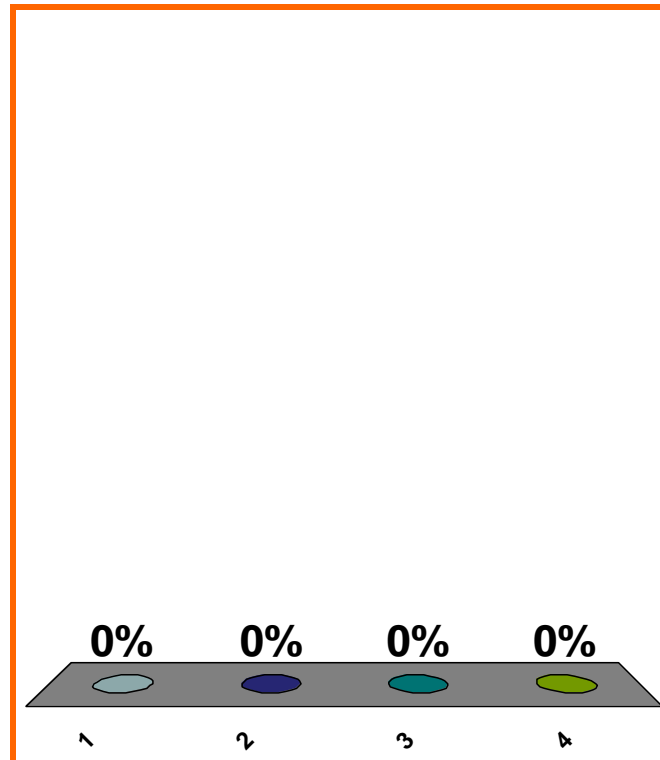
$$g'(6) = ??$$

(a) 1/2

(b) 4

(c) not enough information

(d) none of the above



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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$$\begin{aligned} [d/dx][xe^y + y] &= e^y + xe^y y' + y' \\ &= e^y + (xe^y + 1)y' \end{aligned}$$

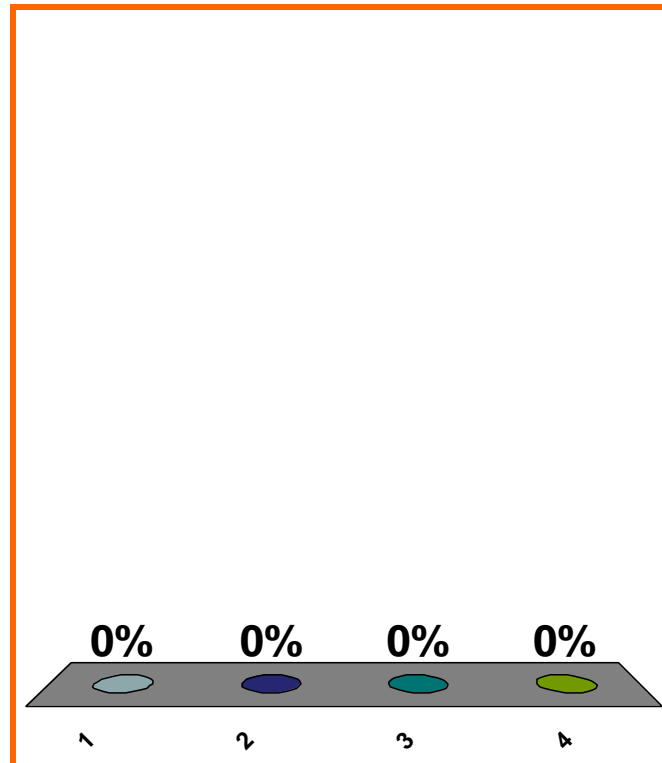
$$\begin{aligned} xe^y + y &= 1 \\ y' &= ?? \end{aligned}$$

(a) $e^y / (xe^y + 1)$

(b) $(1 - e^y) / (xe^y + 1)$

(c) $-e^y / (xe^y + 1)$

(d) none of the above



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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$$y' = -e^y / (xe^y + 1)$$

$$xe^y + y = 1$$

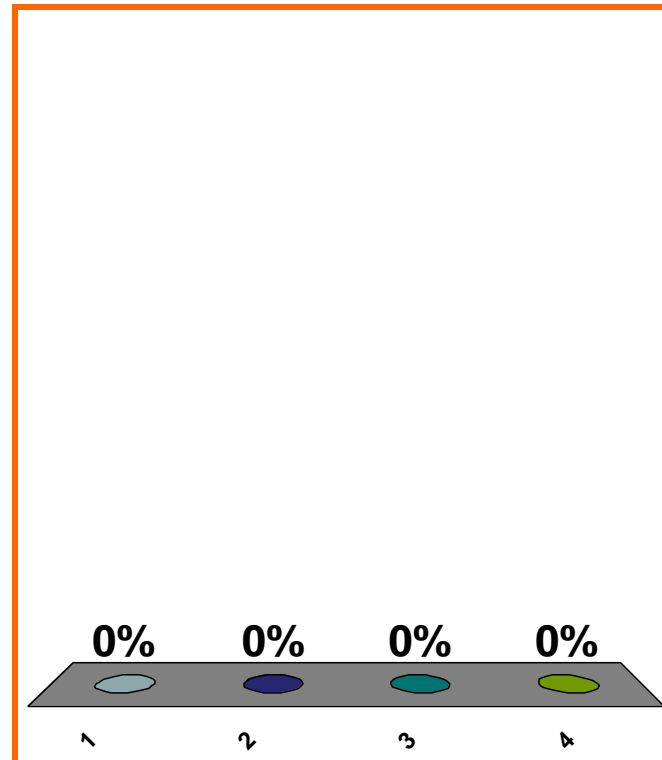
slope at (0, 1)?

(a) 0

(b) -1

(c) $-e$

(d) none of the above



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

$$\ln(1 + [f(x)]) \quad x \xrightarrow{\sim} a \quad ??$$

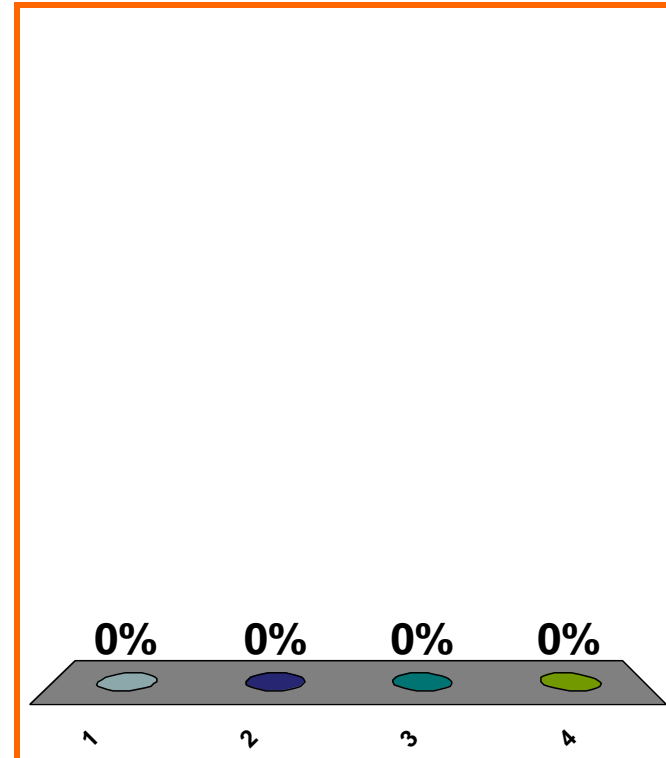
provided $f(x) \xrightarrow{x \rightarrow a} 0$

(a) 0

(b) $f(x)$

(c) $1 + [f(x)]$

(d) none of the above



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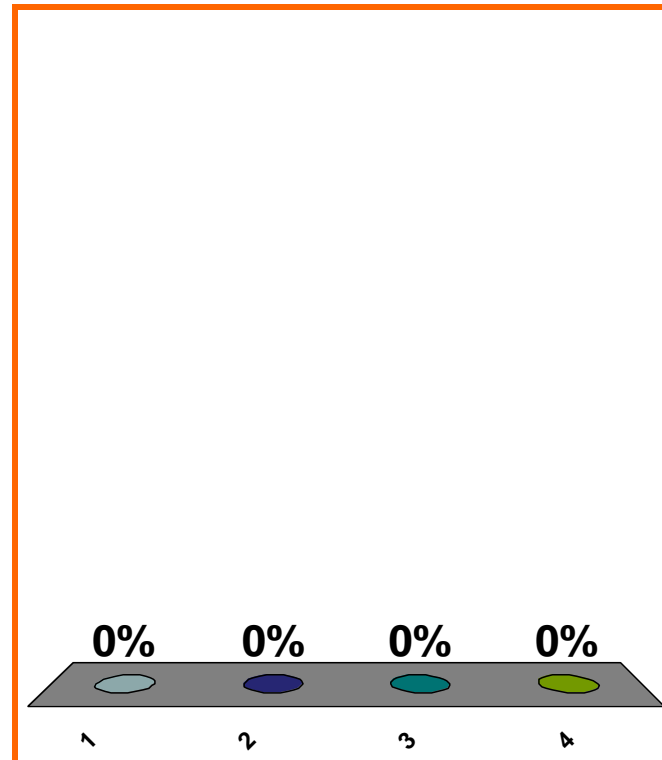
$$\lim_{n \rightarrow \infty} n[\ln(1 + (3/n))] = ??$$

(a) 3

(b) 0

(c) 1/3

(d) none of the above



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

0 of 5

Topic 0420

10 pts

16

SAVE THE
SESSION
DATA

RETURN TO
PRESENTATION