

MATH 161 REALITY CHECK 16 NAME: _____

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[Run: 01/22/2016 at 21:56 Seed: 6477. Order of Checkable Items: List.]

Response Grid (Check the appropriate boxes thus:)

Question	a	b	c	d	e
1					
2					
3					
4					
5					
6					
7					

After having read the chapter pencil in hand and done this REALITY CHECK ,

i. What would you say the idea of the chapter is:

ii. What questions do you have:

-
-
-

MATH 161 REALITY CHECK 16 NAME: _____

Rck 16-1. Given the function *MENIE* whose global input-output rule is

$$x \xrightarrow{MENIE} MENIE(x) = \frac{x^3 - 16}{x}$$

find the approximate local input-output rule of *MENIE* near ∞ for concavity-sign.

Your Work:

i. You must make your case for whatever statement you are making.

ii. Circle which of the following choices corresponds to your result.

- a. $x \xrightarrow{MENIE_\infty} MENIE_\infty(x) = +x^3 - 16 + [\dots]$
 b. $x \xrightarrow{MENIE_\infty} MENIE_\infty(x) = +x^2 + [\dots]$
 c. $x \xrightarrow{MENIE_\infty} MENIE_\infty(x) = +x^2 + \frac{16}{x} + [\dots]$
 d. $x \xrightarrow{MENIE_\infty} MENIE_\infty(x) = +x^3 + [\dots]$

e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .

Rck 16-2. Given the function *f* specified by the global input-output rule

$$x \xrightarrow{f} f(x) = \frac{-6x^2 - 3x + 8}{-2x^5 - 5x^4 + x^3}$$

find the approximate local input-output rule of *f* near ∞ for concavity-sign

Your Work:

i. You must make your case for whatever statement you are making.

ii. Circle which of the following choices corresponds to your result.

a. $x \xrightarrow{f_\infty} f_\infty(x) = -3x^{-3} + [\dots]$

b. $x \xrightarrow{f_\infty} f_\infty(x) = +3x^{-3} + [\dots]$

c. $x \xrightarrow{f_\infty} f_\infty(x) = -\frac{1}{3}x^3 + [\dots]$

d. $x \xrightarrow{f_\infty} f_\infty(x) = +\frac{1}{3}x^3 + [\dots]$

e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .

Rck **16-3.** Given the function *NANA* specified by the global input-output rule

$$x \xrightarrow{NANA} NANA(x) = \frac{x^2 - 4}{(x - 3)^2}$$

find the approximate local input-output rule of *NANA* near ∞ for concavity-sign

Your Work:

i. You must make your case for whatever statement you are making.

ii. Circle which of the following choices corresponds to your result.

- a. $h \xrightarrow{NANA_\infty} NANA_\infty(h) = 1 + [\dots]$
 b. $h \xrightarrow{NANA_\infty} NANA_\infty(h) = 1 + 6x^{-1} + [\dots]$
 c. $h \xrightarrow{NANA_\infty} NANA_\infty(h) = 1 - 6x^{-1} + [\dots]$
 d. $h \xrightarrow{NANA_\infty} NANA_\infty(h) = 1 - 6x + [\dots]$
 e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .

Rck 16-4. Given the function f whose global input-output rule is

$$x \xrightarrow{f} f(x) = \frac{-3x^3 - 8x^2 - 8x - 13}{-3x^2 + x - 5}$$

find the approximate local input-output rule near ∞ for concavity-sign

Your Work:

- i. You must make your case for whatever statement you are making.

- ii. Circle which of the following choices corresponds to your result.

- a. $+x + [\dots]$ b. $x + 3 + 2x^{-1} + [\dots]$ c. $x - 3 - 2x^{-1} + [\dots]$ d. $+x + 3 + [\dots]$
 e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .

Rck 16-5. Given the function $MENIE$ whose global input-output rule is

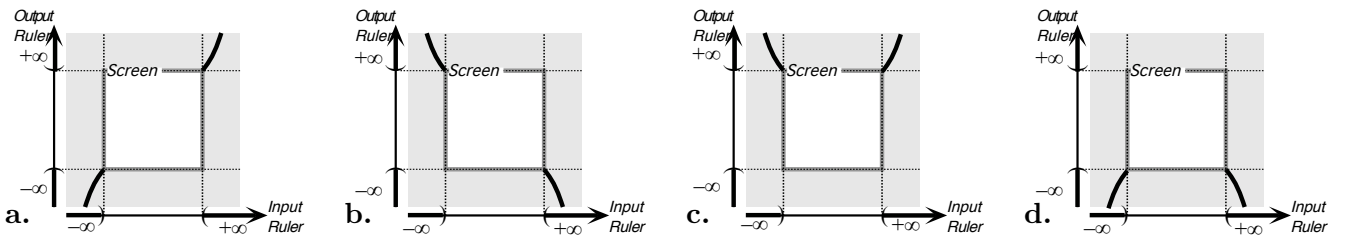
$$x \xrightarrow{MENIE} MENIE(x) = \frac{x^3 - 16}{x}$$

find the local graph of $MENIE$ near ∞ .

Your Work:

- i. You must make your case for whatever statement you are making.

ii. Circle which of the following choices corresponds to your result.



e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .

Rck 16-6. Given the function $JEAN$ whose global input-output rule is

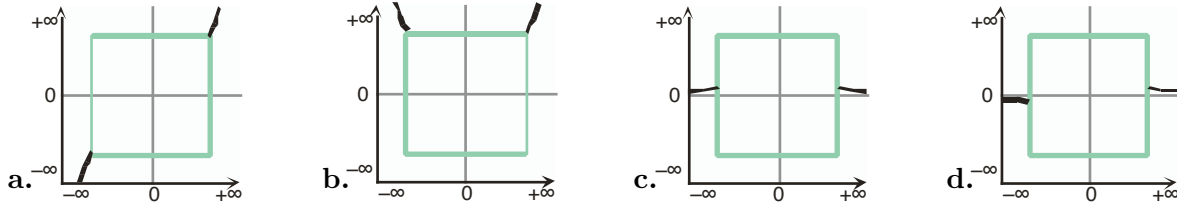
$$x \xrightarrow{JEAN} JEAN(x) = \frac{x}{x^3 + 8}$$

find the local graph of $JEAN$ near ∞ .

Your Work:

i. You must make your case for whatever statement you are making.

ii. Circle which of the following choices corresponds to your result.



e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .

Rck 16-7. HOMEWORKtext

Your Work:

i. You must make your case for whatever statement you are making.

ii. Circle which of the following choices corresponds to your result.

a. *a* b. *b* c. *c* d. *d*

e. None of the preceding

iii. Check the corresponding box in the **Response Grid** on the front page thus: .