

MATH 161 REALITY CHECK 17 NAME: \_\_\_\_\_

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[ Run: 01/22/2016 at 21:55 Seed: 6477. Order of Checkable Items: List.]

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**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:

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- 
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MATH 161 REALITY CHECK 17 NAME: \_\_\_\_\_

*Rck 17-1.* 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 near 0 for graph.

**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.  $h \xrightarrow{MENIE_0} MENIE_0(h) = -16 + h^3 + [\dots]$

b.  $h \xrightarrow{MENIE_0} MENIE_0(h) = \frac{-16 + h^3}{h}$

c.  $h \xrightarrow{MENIE_0} MENIE_0(h) = -\frac{16}{h} + [\dots]$

d.  $h \xrightarrow{MENIE_0} MENIE_0(h) = +h^2 + [\dots]$

e. None of the preceding

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

*Rck 17-2.* Given the function *JEAN* specified by the global input-output rule

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

find the approximate input-output local rule for graph near  $-2$

**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.  $h \xrightarrow{JEAN} JEAN(x) = -\frac{1}{6}h^{-1} + [\dots]$
- b.  $h \xrightarrow{JEAN} JEAN(x) = +\frac{1}{8}h^{-1} + [\dots]$
- c.  $h \xrightarrow{JEAN} JEAN(x) = +8h^{-1} + [\dots]$
- d.  $h \xrightarrow{JEAN} JEAN(x) = +h^{-2} + [\dots]$
- e. None of the preceding

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

*Rck 17-3.* Given the function *NANA* whose global input-output rule is

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

find the approximate local input-output rule near +3 for graph.

**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.  $h \xrightarrow{NANA_{+3}} NANA_{+3}(h) = -4h^{-2} + [\dots]$   
 b.  $h \xrightarrow{NANA_{+3}} NANA_{+3}(h) = +5h^{-2} + [\dots]$   
 c.  $h \xrightarrow{NANA_{+3}} NANA_{+3}(h) = \frac{+5}{9 - 6h + h^2} + [\dots]$   
 d.  $h \xrightarrow{NANA_{+3}} NANA_{+3}(h) = \frac{-4}{9 + 6h + h^2} + [\dots]$

e. None of the preceding

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

*Rck 17-4.* Given the function *MENIE* whose global input-output rule is

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

find the local graph near 0.

**Your Work:**

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

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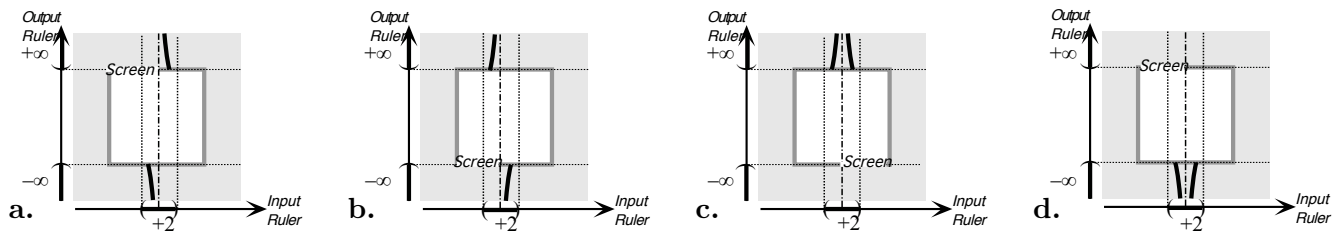


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ii. Circle which of the following choices corresponds to your result.



e. None of the preceding

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

*Rck 17-5.* Given the function *JEAN* whose global input-output rule is

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

find the local graph near  $-2$ .

**Your Work:**

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

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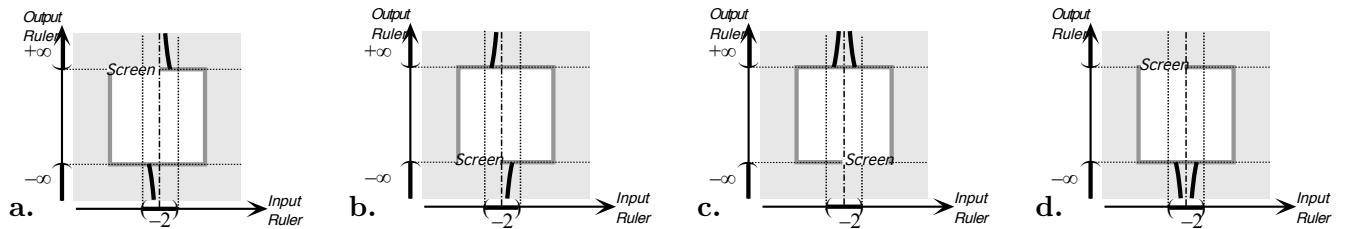


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ii. Circle which of the following choices corresponds to your result.



e. None of the preceding

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

*Rck 17-6.* Given the function *NANA* specified by the global input-output rule

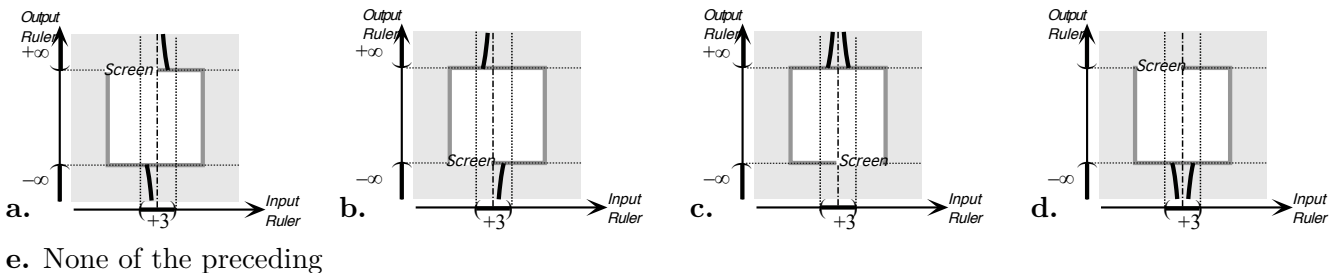
$$x \xrightarrow{NANA} NANA(x) = \frac{x^2 - 4}{(x - 3)^2}$$

find the local graph of *NANA* near  $+3$ .

**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.



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

*Rck 17-7.* Given the function *MENIE* whose global rule is

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

find the approximate local input-output rule near  $-2$  for graph

**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.  $h \xrightarrow{MENIE} MENIE(x) = -24 + h^3 + [\dots]$   
b.  $h \xrightarrow{MENIE} MENIE(x) = +12 + 3h^2 + [\dots]$   
c.  $h \xrightarrow{MENIE} MENIE(x) = -12 - 3h^2 + [\dots]$   
d.  $h \xrightarrow{MENIE} MENIE(x) = +12 + 24h + [\dots]$

e. None of the preceding

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