Math **017** HOMEWORK 17   Name: _____

_____

Response Grid (Check the appropriate boxes thus: ☒)

Question	a	b	c	d	e
1					
2					
3					
4					
5					
6					
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8					
9					
10					
11					

The idea in this HOMEWORK is

Hw **17-1.** Identify $(+13 + h)^2$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $+169 + h^2$ **b.** $+169 + 13h + h^2$ **c.** $+169 + 26h + h^2$ **d.** $+13 + h + h^2$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

Hw **17-2.** dentify $(-15 + h)^2$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $-225 + 15h + h^2$ **b.** $+225 + 15h + h^2$ **c.** $-225 + 30h + h^2$ **d.** $+225 - 30h + h^2$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

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Hw **17-3.** Identify the *constant approximation* of $(+11 + h)^2$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $100 + [...]$ **b.** $11 + [...]$ **c.** $22 + [...]$ **d.** $121 + [...]$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

Hw **17-4.** Identify the *affine approximation* of $(+12 + h)^2$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $+12 + h + [...]$ **b.** $+144 + 12h + [...]$ **c.** $+144 + 24h + [...]$ **d.** $+144 + h + [...]$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

$_{Hw}$ **17-5.** Use the *addition formula* to compute 100.01^2 exactly

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

     a. $10,001$ **b.** $10,002.0001$ **c.** $10,002.01$ **d.** $10,000.01$
     e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

$_{Hw}$ **17-6.** Use the *addition formula* to compute 99.99^2 exactly

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

     a. $9,997.9999$ **b.** $9,999.01$ **c.** $9,998.0001$ **d.** $9,999.0001$
     e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

Hw **17-7.** Identify $(+7+h)^3$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $343 + h^3$
    b. $343 + 21h + h^3$
    c. $343 + 147h + h^3$
    d. $343 + 147h + 21h^2 + h^3$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

Hw **17-8.** Identify $(-8+h)^3$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

a. $+512 + 192h + 24h^2 + h^3$ **b.** $+512 - 192h + 24h^2 + h^3$
c. $-512 - 1292h - 24h^2 + h^3$ **d.** $+512 - 192 + 24h^2 - h^3$
e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

Hw **17-9.** Identify the *constant approximation* of $(-11 + h)^3$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

a. $1331 + (...)$ **b.** $-1331 + (...)$ **c.** $+121 + (...)$ **d.** $-121 + h^3 + (...)$
e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

Hw **17-10.** Identify the *affine approximation* of $(+14 + h)^3$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $2744 + [...]$ **b.** $-2744 + [...]$ **c.** $+2744 - 588h + [...]$ **d.** $-2744 + 588h + [...]$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

        Hw **17-11.** Identify the *quadratic approximation* of $(-13 + h)^3$

Your Work:

i. Explain your reasoning in getting your result.

ii. Circle which of the following choices matches exactly what you got above.

    a. $+2197 + 507h - 39h^2 + [...]$ **b.** $-2197 - 507h - 39h^2 + [...]$
    c. $-2197 + 507h - 39h^2 + [...]$ **d.** $-2197 - 507h + 39h^2 + [...]$
    e. None of the preceding

iii. Check on the front page the box that corresponds to your choice thus ☒..

MATH **017** HOMEWORK 17 Answers

[Run: 02/04/2015 at 18:43 Seed: 6477. Order of Checkable Items: List.]

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Answer Key:

Question	a	b	c	d	e
1	░	░		░	░
2	░	░	░		░
3	░	░	░		░
4	░	░		░	░
5	░		░	░	░
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7	░	░	░		░
8	░	░	░		░
9	░		░	░	░
10	░	░	░	░	
11	░	░		░	░