MATH 141 HW 15 (6573409)

Due: Fri Nov 14 2014 11:59 PM EST

Question 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

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1. Question Details SCalcET6 A.E.001. [1291279]

Write the sum in expanded form.

$$\sum_{i=1}^{5} \sqrt{i}$$

$\sqrt{1}+\sqrt{2}+\sqrt{3}+\sqrt{4}+\sqrt{5}$

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2. Question Details SCalcET6 A.E.002. [1291546]

Write the sum in expanded form.

$$\sum_{i=1}^{6} \frac{1}{i+1}$$

$\frac{1}{2}+\frac{1}{3}+\frac{1}{4}+\frac{1}{5}+\frac{1}{6}+\frac{1}{7}$

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3. Question Details SCalcET6 A.E.003. [1291470]

Write the sum in expanded form.

$$\sum_{i=4}^{6} 3^i$$

$3^4+3^5+3^6$

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4. Question Details SCalcET6 A.E.004. [1291772]

Write the sum in expanded form.

$$\sum_{i=4}^{6} i^3$$

$4^3+5^3+6^3$

5. Question Details SCalcET6 A.E.005. [1290743]

Write the sum in expanded form.

$$\sum_{k=0}^{4} \frac{2k-1}{2k+1}$$

$-1+\frac{1}{3}+\frac{3}{5}+\frac{5}{7}+\frac{7}{9}$

6. Question Details SCalcET6 A.E.006. [1290666]

Write the sum in expanded form.

$$\sum_{k=5}^{8} x^k$$

$x^5+x^6+x^7+x^8$

7. Question Details SCalcET6 A.E.008. [1290059]

Write the sum in expanded form.

$$\sum_{j=n}^{n+3} j^2$$

$n^2+(n+1)^2+(n+2)^2+(n+3)^2$

8. Question Details SCalcET6 A.E.011. [1036592]

Consider the following statement.

$$1+2+3+4+5+6+7+8+9+10=\sum_{i=a}^{b} i$$

Determine *a* and *b*.

a = 1

b = 10

9. Question Details SCalcET6 A.E.012. [1036591]

Consider the following statement.

$$\sqrt{3}+\sqrt{4}+\sqrt{5}+\sqrt{6}+\sqrt{7}=\sum_{i=a}^{b} \sqrt{i}$$

Determine *a* and *b*.

a = 3

b = 7

10. Question Details SCalcET6 A.E.013. [864423]

Write the sum in sigma notation.

$$\frac{1}{2}+\frac{2}{3}+\frac{3}{4}+\frac{4}{5}+\cdots+\frac{19}{20}$$

- $\sum_{i=1}^{19} \frac{i}{i+1}$
- $\sum_{i=1}^{19} \frac{i+1}{i}$
- $\sum_{i=1}^{18} \frac{i}{i+1}$
- $\sum_{i=1}^{20} \frac{i}{i+1}$
- $\sum_{i=1}^{19} \frac{i}{i+2}$

$\sum_{i=1}^{19} \frac{i}{i+2}$

11. Question Details SCalcET6 A.E.014. [864207]

Write the sum in sigma notation.

$$\frac{3}{7}+\frac{4}{8}+\frac{5}{9}+\frac{6}{10}+\cdots+\frac{23}{27}$$

- $\sum_{i=3}^{23} \frac{i}{i+4}$
- $\sum_{i=3}^{23} \frac{i}{i+3}$
- $\sum_{i=0}^{23} \frac{i}{i+4}$
- $\sum_{i=3}^{23} \frac{i+4}{i}$
- $\sum_{i=3}^{27} \frac{i}{i+4}$

12. Question Details SCalcET6 A.E.015. [864116]

Write the sum in sigma notation.

$$2+4+6+8+\cdots+2n$$

- $\sum_{i=2}^{2n} i$
- $\sum_{i=0}^{n-1} 2i$
- $\sum_{i=2}^{n} i+2$
- $\sum_{i=2}^{n} 2i$
- $\sum_{i=1}^{n} 2i$

13. Question Details SCalcET6 A.E.016. [864331]

Write the sum in sigma notation.

$$1+3+5+7+\cdots+(2n-1)$$

- $\sum_{i=3}^{2n}(i-1)$
- $\sum_{i=1}^{2n}(i-1)$
- $\sum_{i=1}^{2n-1}(i)$
- $\sum_{i=1}^{n}(2i-1)$
- $\sum_{i=0}^{n-1}(2i-1)$

14. Question Details SCalcET6 A.E.024. [1817287]

Find the value of the sum.

$$\sum_{k=0}^{8} 6\cos(k\pi)$$

[ ] 6

15. Question Details SCalcET6 A.E.025. [1816990]

Find the value of the sum.

$$\sum_{n=1}^{20} 9(-1)^n$$

0

16. Question Details SCalcET6 A.E.026. [1817161]

Find the value of the sum.

$$\sum_{i=1}^{100} 9$$

900

17. Question Details SCalcET6 A.E.029. [1816740]

Find the value of the sum.

$$\sum_{i=1}^{n} 4i$$

$2n\,(n+1)$

18. Question Details SCalcET6 A.E.030. [1816753]

Find the value of the sum.

$$\sum_{i=1}^{n} (3 - 9i)$$

$-\dfrac{n\,(9n+3)}{2}$

19. Question Details SCalcET6 A.E.031. [1816537]

Find the value of the sum.

$$\sum_{i=1}^{n} (i^2 + 5i + 4)$$

$\dfrac{1}{3}n\left(n^2+9n+20\right)$

20. Question Details SCalcET6 A.E.032. [1816884]

Find the value of the sum.

$$\sum_{i=1}^{n} (5 + 6i)^2$$

$\frac{1}{3}n\left(36n^2 + 144n + 183\right)$

21. Question Details SCalcET6 A.E.033. [1816611]

Find the value of the sum.

$$\sum_{i=1}^{n} (i + 5)(i + 4)$$

$\frac{n}{3}\left(n^2 + 15n + 74\right)$

22. Question Details SCalcET6 A.E.034. [1817226]

Find the value of the sum.

$$\sum_{i=1}^{n} i(i + 5)(i + 4)$$

$\frac{n\,(n+1)}{4}\left(n^2 + 13n + 46\right)$

23. Question Details SCalcET6 A.E.035. [1817466]

Find the value of the sum.

$$\sum_{i=1}^{n} (i^3 - i - 4)$$

$\frac{1}{4}n\left(n^3 + 2n^2 - n - 18\right)$

24. Question Details SCalcET6 A.E.043. [1816289]

Find the limit.

$$\lim_{n\to\infty} \sum_{i=1}^{n} \frac{4}{n}\left(\frac{i}{n}\right)^2$$

4/3

25. Question Details SCalcET6 A.E.044. [1817134]

Find the limit.

$$\lim_{n\to\infty} \sum_{i=1}^{n} \frac{3}{n}\left[\left(\frac{i}{n}\right)^3 + 1\right]$$

15/4

26. Question Details SCalcET6 A.E.045. [1816407]

Find the limit.

$$\lim_{n\to\infty} \sum_{i=1}^{n} \frac{3}{n}\left[\left(\frac{2i}{n}\right)^3 + 5\left(\frac{2i}{n}\right)\right]$$

21

27. Question Details SCalcET6 A.E.046. [1816506]

Find the limit.

$$\lim_{n\to\infty} \sum_{i=1}^{n} \frac{5}{n}\left[\left(1 + \frac{3i}{n}\right)^3 - 2\left(1 + \frac{3i}{n}\right)\right]$$

325/4

Assignment Details

Name (AID): **MATH 141 HW 15 (6573409)**
Submissions Allowed: **100**
Category: **Homework**
Code:
Locked: **No**
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