



وزارة التربية والتعليم و التعليم الفنى
الإدارة المركزية للتعليم العام
إدارة تنمية مادة الرياضيات

برعاية معالي وزير التربية والتعليم و التعليم الفنى السيد الأستاذ / محمد عبد اللطيف

ونوجيهات رئيس الإدارة المركزية للتعليم العام
المشرف على مسنشارى المواد الدراسية

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إشراف علمي
مسنشار الرياضيات

أ / منال عزقول

إداءات و تقييمات لمنهج الرياضيات البحتة لفات

للفصل الثانى الثانوي " علمى "

الفصل الدراسى الثانى

للعام الدراسى ٢٠٢٥ / ٢٠٢٦

الاسبوع التاسع

إعداد

أ / إيهاب فنكى / أ / محمد الفار / أ / محمود سراج

ترجمة

أ / عمرو فاروق محمود

مراجعة الترجمة

أ / عثمان مصطفى عثمان / أ / محمود درويش



9 الرياضيات البحتة لغات - للصف الثاني الثانوي علمي الأداء الصفى الأسبوع التاسع 9

First: Algebra:

1) Find $\sum_{r=5}^{12} 3(2)^{r-1}$

Solu:

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.....

2) Find the sum of the first ten terms of the geometric sequence (1, -2,4,-8)

Solu:

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3) Find the sum of terms of the geometric sequence (1024,512,256,128,.....,1)

Solu:

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.....

4) Find the number of terms of the geometric sequence in which the first term =243, the last term =1 and the sum of its terms =346

Solu:

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.....

5) How many terms should be taken from the geometric sequence (1,2,4,.....) starting from its first term to get the sum =127

Solu:

.....

.....



Second: Calculus and integration:

6) Find the points laying on the curve of the function $y = x^4 - 4x + 7$, such that the tangent to the curve is parallel to x-axis.

Solu:

7) Find the value of a that makes the line $y = 3x + a$ is a tangent to the curve $y = x^2 + 5$

Solu:

8) Find the equation of the tangent and the normal to the curve: $y = x \cos x$ at the point laying on it and whose abscissa = π

Solu:

9) Find the equation of the tangent to the curve of the function $f: f(x) = \sqrt{x - 1}$ at the point (5,2)

Solu:

10) Find the equation of the normal to the curve of the function $f: f(x) = \sqrt{x - 1}$ at the point (5,2)

Solu:



9 الرياضيات البحتة لغات - للصف الثاني الثانوي علمي الأداء المنزلي الأسبوع التاسع 9

First: Algebra:

1) Find $\sum_{r=1}^8 (2)^r$

Solu:

2) Find the sum of the first ten terms of the geometric sequence (3, -9, 27, -81)

Solu:

3) Find the sum of terms of the geometric sequence (128, 64 , 32 ,....., $\frac{1}{2}$)

Solu:

4) Find the number of terms of the geometric sequence in which the first term = $\frac{1}{25}$, the last term =25, and the sum of its terms = $\frac{781}{25}$

Solu:

5) How many terms should be taken from the geometric sequence (3,6,12,.....) starting from its first term to get the sum =381

Solu:



Second: Calculus and integration:

6) Find the points laying on the curve of the function $y = x^3 - 3x + 1$, such that the tangent to the curve is parallel to x-axis.

Solu:

7) Find the value of a that makes the line $x + y = a$ is a tangent to the curve $y = x^{-1}$

Solu:

8) Find the equation of the tangent and the normal to the curve: $y = x \sin x$ at the point laying on it and whose abscissa = π

Solu:

9) Find the equation of the tangent to the curve of the function $f: f(x) = \sqrt{2x + 1}$ at the point (0,1)

Solu:

10) Find the equation of the normal to the curve of the function $f: f(x) = \sqrt{2x + 1}$ at the point (0,1)

Solu:



⑨ الرياضيات البحتة لغات - للصف الثاني الثانوي علمي التقييمات الأسبوعية الأسبوع التاسع ⑨

The first group:

1) Find the sum of the first ten terms of the geometric sequence (5, -10, 20, -40)

Solu:

2) Find the sum of terms of the geometric sequence (8, 4 , 2 ,....., $\frac{1}{8}$)

Solu:

3) How many terms should be taken from the geometric sequence (625,125, 25 ,)
starting from its first term to get the sum =781

Solu:

4) Find the equation of the tangent to the curve of the function f: $f(x) = \sqrt{2x + 7}$ at the point (1,3)

Solu:

5) Find the equation of the normal to the curve of the function f: $f(x) = \text{Cos } x$ at the point $(\pi,-1)$

Solu:



The second group:

1) Find the sum of the first ten terms of the geometric sequence (4, -8, 16, -32)

Solu:

2) Find the sum of terms of the geometric sequence (4 , 2 ,1 , , $\frac{1}{16}$)

Solu:

3) How many terms should be taken from the geometric sequence (256,128, 64 ,)
starting from its first term to get the sum =510

Solu:

4) Find the equation of the tangent to the curve of the function $f: f(x) = \sqrt{6x + 1}$ at the point (4,5)

Solu:

5) Find the equation of the normal to the curve of the function $f: f(x) = \sin \frac{1}{2}x$ at the point $(\pi,1)$

Solu:



The third group:

1) Find the sum of the first ten terms of the geometric sequence (1, -3, 9, -27)

Solu:

2) Find the sum of terms of the geometric sequence (2, 1 , $\frac{1}{2}$,....., $\frac{1}{32}$)

Solu:

3) How many terms should be taken from the geometric sequence (64,32, 16 ,)
starting from its first term to get the sum =127

Solu:

4) Find the equation of the tangent to the curve of the function f: $f(x) = \sqrt{7x + 2}$ at the point (1,3)

Solu:

5) Find the equation of the normal to the curve of the function f: $f(x) = \tan \frac{1}{4}x$ at the point $(\pi,1)$

Solu: