Calculator Review A2CC

ASK:

1. Solve for x: $2^{3x} = 4^{x-1}$

   a. 1 b. 2
   c. -1 d. -2

2. Solve for x: $\log_3 x = 4$

   a. 16 b. 27
   c. 64 d. 81

3. In the equation $\log_x 4 + \log_x 9 = 2$, x is equal to

   a. $\sqrt{13}$ b. 6
   c. 6.5 d. 18

4. Solve for x: $\frac{1}{2} + \frac{5}{x-2} = 3$

   a. 0 b. 2
   c. 24/7 d. 4

5. If $\sin^2(27) + \cos^2(A) = 1$, then A =

   a. 63 b. 27
   c. 73 d. 0

STORE:

6. If $f(x) = (16x)^0 + x^{2/3}$, find f(64)

   a. 5 b. 17
   c. 65 d. 1025

64 sto X

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$(16X)^0+X^{2/3}$ 128

$\sqrt[3]{64X^{16}}$ 17

$4X^5\sqrt[3]{X}$ 1.717986918E10

1.717986918E10

7. The expression $\sqrt[3]{64a^{16}}$ is equivalent to

   a. $8a^4$ b. $8a^8$
   c. $4a^5\sqrt[3]{a}$ d. $4a\sqrt[3]{a^5}$

8. If $f(x) = \frac{x}{x^2 - 16}$, what is the value of f(-10)?

a. $-\frac{5}{2}$ b. $-\frac{5}{42}$

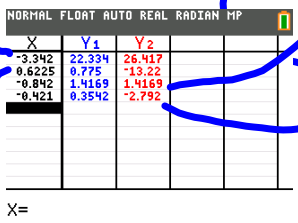
c. $\frac{5}{58}$ d. $\frac{5}{18}$

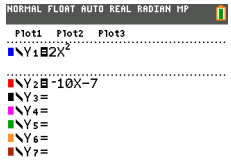
9. A solution to the equation $2x^2 = -10x - 7$ is

or Ask

a. $\frac{-10+\sqrt{11}}{2}$ b. $\frac{-5+\sqrt{11}}{2}$

c. $\frac{-5+\sqrt{39}}{2}$ d. $\frac{-5+\sqrt{11}}{4}$





Y =:

x = 1 2 3 4 5

10. The formula for the nth term of the sequence 3, -6, 12, -24, ...

a. $a_n = -2(3)^n$ b. $a_n = 3(-2)^n$

c. $a_n = -2(3)^{n-1}$ d. $a_n = 3(-2)^{n-1}$

11. Which summation will not produce 2 + 4 + 6 + 8 + 10 + 12?

a. $\sum_{b=2}^{12} b$ b. $\sum_{a=1}^{6} 2a$

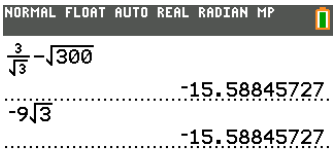
c. $\sum_{d=2}^{7} (2d-2)$ d. $2\sum_{c=0}^{5} (c+1)$

JUST TYPE IT IN:

12. Simplify the expression into a single term: $\frac{3}{\sqrt{3}} - \sqrt{300}$

a. $11\sqrt{3}$ b. -10

c. $-9\sqrt{3}$ d. $9\sqrt{3}$



13. Express 1.2π radians in degrees

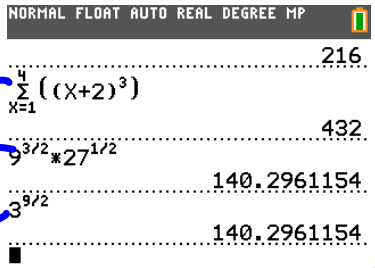
Mode = Deg

$(1.2\pi)^r$ ↑ 2nd Apps

a. 76° b. 108°
c. 150° d. 216°

14. Evaluate: $\sum_{k=1}^{4}(k+2)^3$

a. 216 b. 324
c. 432 d. 553



15. The expression $9^{\frac{3}{2}} \cdot 27^{\frac{1}{2}}$ is equivalent to

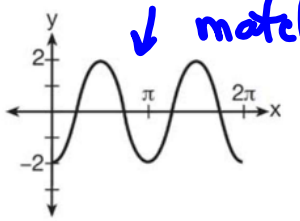
a. 3^2 b. $3^{9/2}$
c. 243^2 d. $243^{3/4}$

TRIG GRAPHS:

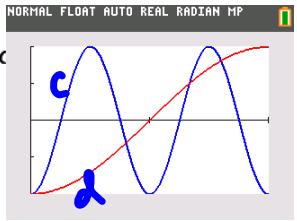
Radians

cos

16. Which equation represents the graph at right?

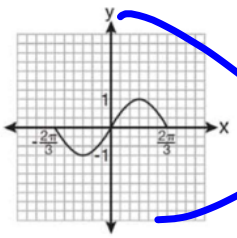


a. $y = -2\sin 2x$ b. $y = -2\sin\frac{1}{2}x$
c. $y = -2\cos 2x$ d. $y = -2\cos\frac{1}{2}x$

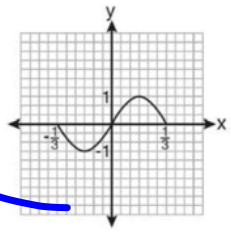


17. Which graph represents one complete cycle of the ec

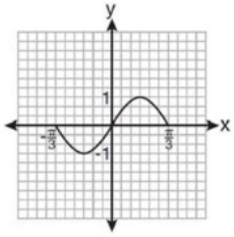
a.



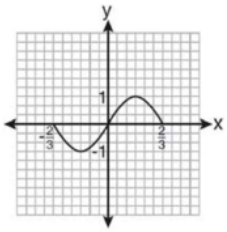
b.



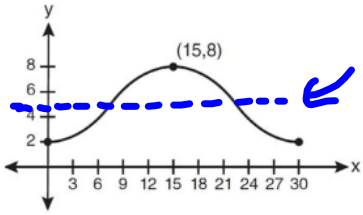
c.



d.



18. Which equation is graphed in the diagram below?



Radian window
x: 0,30
y: 0,8

a. $y = 3\cos\left(\frac{\pi}{30}x\right) + 8$

b. $y = 3\cos\left(\frac{\pi}{15}x\right) + 5$

c. $y = -3\cos\left(\frac{\pi}{30}x\right) + 8$

d. $y = -3\cos\left(\frac{\pi}{15}x\right) + 5$

19. Relative to the graph of y = 2cosx, what is the shift of the graph of $y = 2\cos\left(x - \frac{\pi}{4}\right)$?

a. $\frac{\pi}{4}$ left

b. $\frac{\pi}{4}$ up

c. $\frac{\pi}{4}$ right

d. $\frac{\pi}{4}$ down

confirm by graphing both
x: (-π, π) xscl π/4
y: (-1, 1)

iPART: ← math num 3: ipart

20. Expressed in simplest form $i^{16} + i^6 - 2i^5 + i^{13}$ is equivalent to

a. 1

b. -1

c. i

d. -i

21. Given the complex number a + bi, where a is the real part and b is the imaginary part, find the value of a in the simplified form of $(6 - 2i)(3 + 4i)^2$

a. -1

b. 6

c. 102

d. 158

22. Expressed in a + bi form $\frac{5}{3+i}$ is equivalent to

a. $\frac{15}{8} - \frac{5}{8}i$

b. $\frac{5}{3} - 5i$

c. $\frac{3}{2} - \frac{1}{2}i$

d. 15 - 5i

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iPart($i^{16}+i^6-2i^5+i^{13}$) → -i

$(6-2i)(3+4i)^2$ → -i

$\frac{5}{3+i}$ → 6+158i

→ $\frac{3}{2}-\frac{1}{2}i$