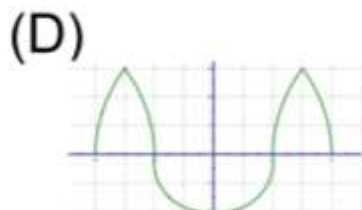
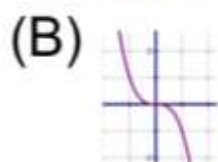
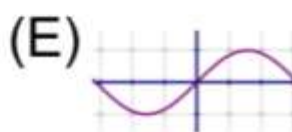
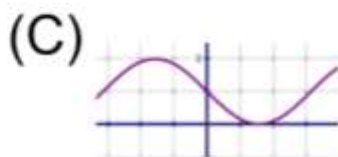
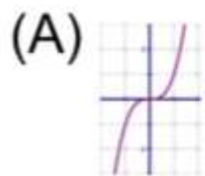


M1

For which of the following graphs of f does $f(x) = f(-x)$ for all values of x shown?



M2

For all positive values of x , the function f is defined by $f(x) = x^3 - x^2$. Of the following, which is the best approximation of $f(x)$ for values of x greater than 1,000?

(A) x^3

(C) x^5

(B) x^4

(D) x^6

T1

The terminal side of an angle θ , in standard position passes through the point $(7, -24)$. What is $\csc \theta$?

- a. $-\frac{24}{25}$
- b. $-\frac{25}{24}$
- c. $\frac{24}{25}$
- d. $-\frac{25}{7}$
- e. $-\frac{24}{7}$

T2

In the expression $\frac{u}{\sqrt{u^2 - 1}}$, let $u = \csc x$. Which of these is equivalent to the resulting expression?

- a. $\sec x(\sec x + \tan x)$
- b. $\csc x$
- c. $\sec x$
- d. $\csc x(\csc x + \cot x)$
- e. $\frac{\cos x(\sin x - 1)}{\sin x}$

T3

Form the difference quotient for $f(x) = \frac{1}{5x+7}$ and evaluate it at $x = -3$

- a. $\frac{-1}{8}$
- b. $\frac{-5h}{64 - 40h}$
- c. $\frac{-5}{40h - 64}$
- d. $\frac{5}{40h - 64}$
- e. $\frac{-5h}{40h - 64}$

W1 Solve for x : $36^x - 6^{x+1} = 16$

- a. $\log_6 2$
- b. $3\log_6 2$
- c. $2\log_6 3$
- d. $\log_2 6$
- e. $\log_6 16$

W2

If $\log_x 81 = 4$, find $\log_3 \sqrt{x}$.

- A. $\frac{1}{3}$
- B. 1
- C. 3
- D. $\frac{1}{2}$
- E. 9

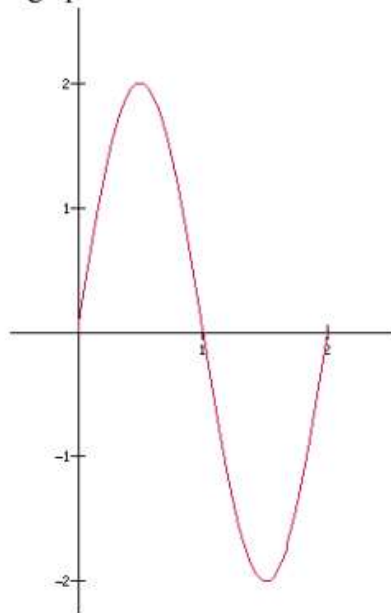
W3

If $\log_b 3 = P$ and $\log_b 4 = Q$, find $\log_b 18$.

- A. $\frac{P^2 Q}{2}$ B. $2P + \frac{Q}{2}$ C. $\frac{P}{2} + 2Q$ D. $P + Q^2$ E. $P^2 + \sqrt{Q}$

W4

The figure below shows the graph of a cosine function for one period. Which of the following is an equation for the graph?



- a. $y = 2 \cos\left(\pi\left(x - \frac{1}{2}\right)\right)$
- b. $y = 2 \cos\left(\frac{\pi}{2}(x+1)\right)$
- c. $y = 2 \cos(2x+1)$
- d. $y = 2 \cos(\pi(x+1))$
- e. $y = \cos\left(2\left(x + \frac{\pi}{2}\right)\right)$