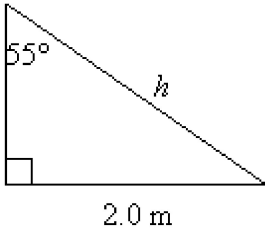


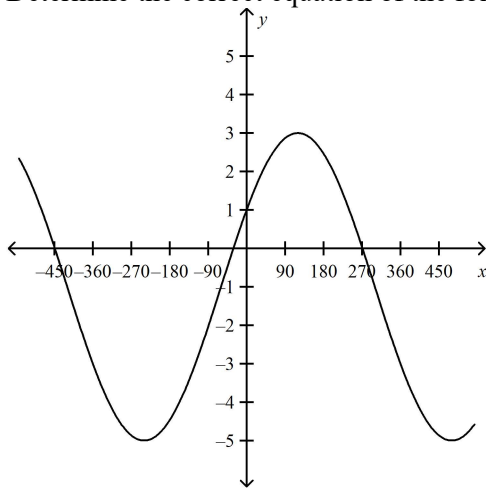
Multiple Choice

K ___/7

Identify the choice that best completes the statement or answers the question.

- ___ 1. Which relation is a function?
- a. $\{(-3, -2), (-1, 3), (0, -2), (3, 4)\}$ c. $\{(-7, -7), (-2, 5), (-1, 6), (-2, -5)\}$
b. $\{(0, 1), (3, 2), (5, -3), (0, 2)\}$ d. $\{(-4, -7), (-9, 5), (4, -2), (-9, 0)\}$
- ___ 2. Evaluate $f(x) = -4x^2 + 7$ for $f(1) + f(-2)$.
- a. -6 c. 26
b. 3 d. 94
- ___ 3. Which of the following expresses $\sqrt{96}$ in simplest form?
- a. $6\sqrt{3}$ c. $4\sqrt{6}$
b. $16\sqrt{6}$ d. $8\sqrt{2}$
- ___ 4. Which of the following is equivalent to the expression $(a^3 b^4)^{-2} (a^{-3} b^{-5})^{-4}$?
- a. $a^6 b^{12}$ c. $\frac{1}{a^6 b^{12}}$
b. $a^{12} b^{15}$ d. $\frac{1}{a^6 b^7}$
- ___ 5. Determine the length of the hypotenuse of the triangle to the nearest tenth of a metre.
- 
- a. 3.1 m c. 2.1 m
b. 2.4 m d. 2.9 m
- ___ 6. Without graphing, determine the period of the function $y = 3.7 \sin(15x) - 0.1$.
- a. 24 c. 30
b. 15 d. 3.7

7. Determine the correct equation of the following graph.



a. $y = 4 \cos(2x - 60^\circ) - 1$

b. $y = 4 \cos(0.5x - 60^\circ) - 1$

c. $y = 4 \cos(2x + 30^\circ) - 1$

d. $y = 4 \cos(0.5x + 30^\circ) - 1$

Full Solution - Note- there are upto 4 Communication points available for presentation of your mathematics.

8. Given $f(x) = \sqrt{3(x+2)} - 1$,

a) What is the parent function for $f(x)$? [K:1]

b) State all the transformations contained in $f(x)$. Also, state the domain of $f(x)$. [K:3]

c) Sketch the graph of $f(x)$. (Using a table of values may help) [K:3]

