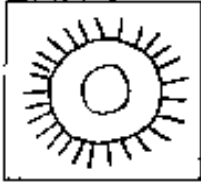


Precalculus Doodle Review Sheet

Directions: Solve each of the problems below and write the appropriate letter in the blank beside each problem. Then fill in the corresponding letter for each blank to determine the correct title of the doodle.



You probably thought the title to the doodle above was "A circular centipede under a beach umbrella," or maybe "A bagel wearing false eyelashes." But the real title is:

1. Determine the domain of $y = \sqrt{x-3}$
2. Determine the slope of $y = 2x^2 - 4x + 2$
3. Determine the distance AB, given the coordinates A(-1, 1) and B(2, 3)
4. Graph $|x| > 1$
5. Describe the domain $|x - 1| < 3$ without using absolute value signs
6. Determine the equation of the line through (2, 1) and (2, -5)
7. Determine the equation of the line through (1, 4) and having an angle of inclination = 45 degrees

ANSWERS

- ? (-9, -1)
- A -1
- A
- B
- C
- D
- E
- H $x \geq 3$
- I $|x - 2| < 5$
- I $\frac{\pi}{3}$
- K 144
- L $3x + 2$
- N (5, 0)
- O $y = x + 3$
- O $-2 < x < 4$
- O $4x - 4$
- P 6x
- S 1

- _____ 8. A particle is moving along the parabola $y = x^2$ from $(-1, 1)$ to (x, y) . Determine $\frac{\Delta y}{\Delta x}$ in terms of x T $x^2 - 1$
U $x - 1$
W $\sqrt{13}$
- _____ 9. If $f(x) = x + 2$ and $g(x) = 3x$, find $f(g(x))$ Y None of the above
- _____ 10. Use absolute value symbols to describe the domain $-3 < x < 7$
- _____ 11. Convert $\frac{4\pi}{5}$ radians to degrees
- _____ 12. Graph $|x| \leq 1$
- _____ 13. Convert 60 degrees to radians
- _____ 14. If $f(x) = x^2$ and $g(x) = x - 1$, find $g(f(x))$
- _____ 15. With respect to the x-axis, $(-9, 1)$ is symmetric to ...
- _____ 16. Determine the slope of a line whose angle of inclination is 135 degrees
- _____ 17. If $f(x) = [x] + 1$, find $f(.5)$
- _____ 18. Find the x-intercept of $2x + 5y = 10$
- _____ 19. Graph the DOMAIN of $y = \sqrt{\frac{x}{x+1}}$ on the number line
- _____ 20. Determine the slope of $y = 3x^2 - 8$ at (x, y)

Many thanks to Kathy Rivers who retyped this doodle!