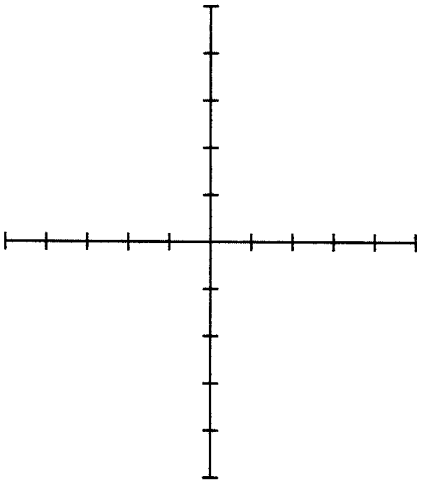
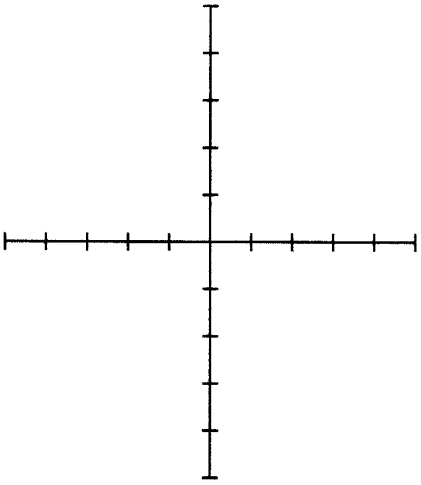
SAMPLE TEST "D" -- PRECALCULUS (CONTINUED)

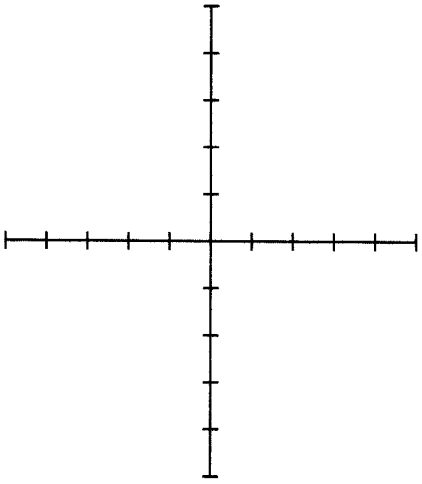
11. Graph: $y = 2x + 1$



12. Graph: $y = \sin x$



13. Graph: $y = \dfrac{1}{x - 2}$



14. $\sin^2\theta + \cos^2\theta =$ _____

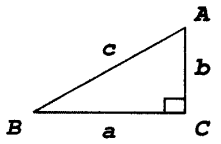
15. What line has a slope of 2 and passes through the point (2, 1)?

16. Simplify: $\log \dfrac{x^2 y}{z} =$ _____

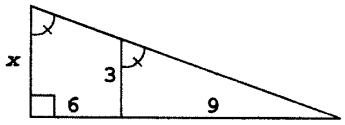
SAMPLE TEST "D" -- PRECALCULUS

YOU SHOULD BE ABLE TO DO ALL OF THE PROBLEMS IN THE INTERMEDIATE ALGEBRA TEST, PLUS THE FOLLOWING.

1. Given that triangle *ABC* is a right triangle, sin *A* = _____



2. What is the length of line segment *x* ?

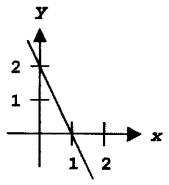


3. Suppose *c* = 8 and *a* = 6 in triangle *ABC* in problem 1. What is *b* ?

4. cos 60° = _____

5. 150° = _____ radians.

6. What is the slope of the line shown to the right?



7. You have $400 to prepare a square-shaped vegetable garden. It costs $2 per square yard to condition the soil and $5 per yard to put a fence around the garden. What is the maximum length of a side of the garden?

8. If $\log_4(2x) = 3$, then x = _____

9. Simplify: $(x^2 - 3x + 2) \div (x - 2)$

10. If $f(x) = \log_3(x + 2)$ and $g(x) = x^2 - 2$, then $f(g(3))$ = _____