1. The Discriminant of a parabola that is concave up and whose vertex lies in Quadrant III is:
   a. Positive
   b. Zero
   c. Negative
   d. Complex
   e. None of the above

2. The Walker family will be attending a wedding. Betty and Harold leave a day early and arrive in the town where the wedding will take place in 3.5 hours. Mary and Cindy leave the morning of the wedding, drive an average of 10 mph faster than their parents did the day before, and arrive in 3 hours. How far away was the town from the Walker residence?
   a. 165 miles
   b. 180 miles
   c. 60 miles
   d. **210 miles**
   e. None of the above

3. The \( y \)-intercept of the line passing through \((1,1)\) that is perpendicular to the line \(2x - y = 4\) is:
   a. \((0,2)\)
   b. \((0,-4)\)
   c. \((0,\frac{3}{2})\)
   d. \((0,-1)\)
   e. None of the above
4. The x-intercept of the line passing through (2,1) that is parallel to the line \( x - 3y = 1 \) is:
   
   a. \((1,0)\)
   b. \(\left(\frac{1}{3},0\right)\)
   c. \(\left(-\frac{5}{3},0\right)\)
   d. \((-1,0)\)
   e. None of the above

5. Which of the following statements are true about the parabola \( f(x) = x^2 - 2x + 4 \)?
   
   I) It is concave up
   II) It has two x-intercepts
   III) Its vertex lies in Quadrant II
   
   a. I and II only
   b. II and III only
   c. I, II and III
   d. I only
   e. None of the above

6. The sum of two consecutive positive integers whose product is 552 is:
   
   a. 23
   b. 45
   c. 54
   d. 47
   e. None of the above

7. The radius of the circle \( x^2 + 3x + y^2 + 5y = 8 \) is:
   
   a. A number between 0 and 5
   b. A number between 5 and 10
   c. A number between 10 and 15
   d. A number between 15 and 20
   e. None of the above
8. The midpoint of the line segment with endpoints (4,5) and (−6,−3) lies in:

   a. Quadrant I
   b. **Quadrant II**
   c. Quadrant III
   d. Quadrant IV
   e. None of the above

9. The distance between the center of the circle \( x^2 + 2x + y^2 - 4y = 10 \) and the origin is:

   a. \( \sqrt{2} \)
   b. 5
   c. \( \sqrt{3} \)
   d. \( \sqrt{5} \)
   e. None of the above

10. Find the product of the zeros of the function \( f(x) = 4x^2 - 4x - 1 \).

    a. 4
    b. −4
    c. \( -\frac{1}{4} \)
    d. \( \frac{1}{4} \)
    e. None of the above