

Objective 5 - Page 3 of 6

Jupiter has an equatorial diameter of about 8.9×10^4 miles, which is about 11.2 times as great as Earth's equatorial diameter. According to this information, what is Earth's approximate equatorial diameter in scientific notation?

- F 2.3×10^3 mi
- G 9.97×10^5 mi
- H 7.95×10^3 mi
- J 2.01×10^2 mi

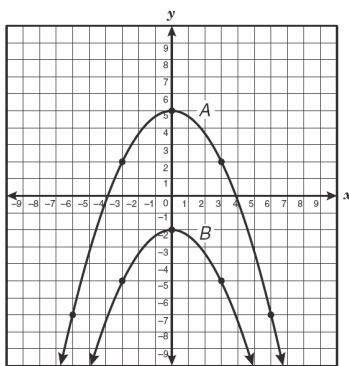
Feb '06 Obj 5 - # 22

- A The ball reached a maximum height of about 16 feet after traveling a horizontal distance of approximately 33 yards.
- B The ball reached a maximum height of about 13 feet after traveling a horizontal distance of approximately 14 yards.
- C The ball was thrown from a height of approximately 6 feet above the ground and traveled a horizontal distance of approximately 20 yards before it reached its maximum height.
- D The ball was thrown from a height of approximately 7 feet above the ground and traveled a horizontal distance of approximately 10 yards before it reached its maximum height.

Feb '06 Obj 5 - # 59 (cont)

The grid below shows parabolas *A* and *B* of the form $y = ax^2 + c$. How are parabolas *A* and *B* related?

- F Parabola *A* is narrower than parabola *B*.
- G Parabola *A* is wider than parabola *B*.



- H All the points on parabola *A* are 7 units below the corresponding points on parabola *B*.
- J All the points on parabola *A* are 7 units above the corresponding points on parabola *B*.

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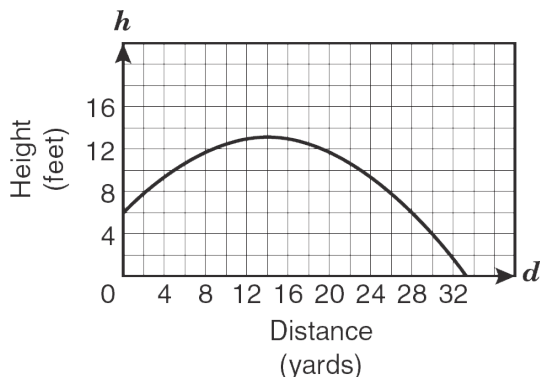
Which expression best represents

$$(3a^2b^3c)(-3ab)(-2a^3bc^3)?$$

- F $18a^6b^5c^4$
- G $-18a^6b^3c^3$
- H $18a^6b^9c^4$
- J $-8a^6b^5c^4$

Dec '06 Obj 5 - # 4

The graph represents the relationship between the height of a ball and the distance it traveled after the ball was thrown. What conclusion can be drawn from the graph about this relationship?



Feb '06 Obj 5 - # 59

Which quadratic function has a vertex below the origin and opens upward?

- A $y = -x^2 + 3$
- B $y = -x^2 - 1$
- C $y = x^2 + 5$
- D $y = x^2 - 2$

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