MIXED TAKS PRACTICE

7. Alan throws a tennis ball into the air in order to serve the ball. The height h (in feet) of the ball after it leaves his hand can be modeled by $h = -16t^2 + 12t + 5$ where t is the time (in seconds). He hits the ball when it falls back to a height of 7 feet. About how long was the ball in the air? *TAKS Obj. 5*

A 0.25 sec

B 0.5 sec

C 0.75 sec

D 2.5 sec

8. What is the y-intercept of the line $5x - 6y = -2$? *TAKS Obj. 3*

F $b = -3$

G $b = -\frac{2}{5}$

H $b = \frac{1}{3}$

J $b = 3$

9. Which expression is equivalent to $-\frac{3}{4}(12x - 4y) + (5y - 8x)$? *TAKS Obj. 2*

A $-4x - 7y$

B $x + 4y$

C $4y - 17x$

D $8y - 17x$

10. The diagram below shows the first three stages of a sequence. What fraction of the circle is shaded in the nth stage? *TAKS Obj. 6*

Stage 1 Stage 2 Stage 3

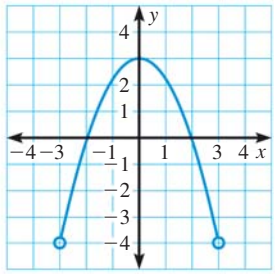
F $\frac{1}{2^n}$

G $\frac{1}{3n - 1}$

H $\frac{1}{3^{n-1} + 1}$

J $\frac{1}{2n}$

11. Which inequality best describes the range of the function represented by this graph? *TAKS Obj. 2*



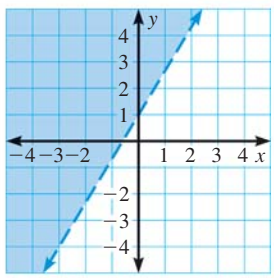
A $-3 < y < 3$

B $-3 \leq y \leq 3$

C $-4 < y \leq 3$

D $-4 \leq y \leq 3$

12. The graph is the solution for which inequality? *TAKS Obj. 1*



F $-3x + 5y \leq 5$

G $3x + 5y < 5$

H $-5x + 3y > 3$

J $5x - 3y \geq 3$

13. **GRIDDED ANSWER** A restaurant's dining room contains square and hexagonal tables. Square tables seat 4 people and hexagonal tables seat 6 people. The number of hexagonal tables is two less than three times the number of square tables. A maximum of 54 customers can be seated in the dining room. How many hexagonal tables are in the dining room? *TAKS Obj. 4*

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.