MIXED REVIEW FOR TEKS

TAKS PRACTICE
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Lessons 5.1–5.4

MULTIPLE CHOICE

1. **HIKING** You hike 5 miles before noon, at which time you take a break to eat lunch. After lunch, you hike at an average rate of 3.5 miles per hour. If you use an equation in slope-intercept form to represent the total number of miles hiked as a function of time, what does the slope represent? *TEKS A.6.B*

   (A) Miles hiked before your break
   (B) Miles hiked per hour before your break
   (C) Total number of miles hiked
   (D) Miles hiked per hour after your break

2. **PHOTOCOPIES** You have \$10 on a copy card. The copy store charges \$0.10 for each black and white copy, and \$1 for each color copy. Which of the following equations models the different combinations of the number b of black and white copies you can make and the number c of color copies you can make? *TEKS A.1.A*

   (F) $b + 10c = 10$ (G) $c + 10b = 100$
   (H) $c - 10b = 0$ (J) $b + 10c = 100$

3. **TREE GROWTH** A tree is 76 inches tall and is expected to grow 2 inches per year. If the height of the tree is graphed as a function of the number of years from now, what does the graph's y-intercept represent? *TEKS A.6.B*

   (A) The tree's growth rate
   (B) The tree's height now
   (C) The tree's age now
   (D) The tree's height x years from now

4. **SWIMMING POOL** You use a garden hose to fill an empty swimming pool at a constant rate. After 5 minutes, there are 15 gallons of water in the pool. After 30 minutes, there are 90 gallons of water in the pool. Which of the following equations gives the volume V (in gallons) of water as a function of the time t (in minutes) since you began filling the pool? *TEKS A.6.D*

   (F) $V = 2t + 3$ (G) $V = 15t$
   (H) $V = 3t$ (J) $V = 5t - 30$

5. **BIKE PATH** Your city is paving a bike path that is 14 miles long. The same length of path is paved each day. After 4 days of paving, there are 8 miles of path left to be paved. Which equation gives y, the number of miles of bike path left to be paved, as a function of x, the number of days since paving began? *TEKS A.1.C*

   (A) $y = -\frac{3}{2}x + 14$
   (B) $y = 14x - \frac{3}{2}$
   (C) $y = -\frac{2}{3}x + 14$
   (D) $y = 14x - \frac{2}{3}$

6. **CATERING** The table shows the cost of a catered lunch buffet for different numbers of people. Which of the following is an equation that relates the total cost C (in dollars) of a catered lunch buffet to the number of people p? *TEKS A.1.B*

Number of people	12	18	24	30
Cost (dollars)	192	288	384	480

   (F) $C - 192 = 12(p - 12)$
   (G) $C - 192 = 16(p - 12)$
   (H) $C - 30 = 12(p - 480)$
   (J) $C - 2 = 16(p - 192)$

GRIDDED ANSWER

7. **MOVING VANS** The cost of renting a moving van includes a rental fee and a charge per mile. A 26 mile trip costs \$62.50, and a 38 mile trip costs \$65.50. What is the cost (in dollars) for a 54 mile trip? *TEKS A.7.A*

8. **SATELLITE RADIO** A satellite radio company charges a monthly fee of \$18 for service. To use the service, you must first buy equipment that costs \$85. What is the total cost (in dollars) after 1 year of satellite radio service? *TEKS A.7.A*