## Lessons 2.4-2.7

## MULTIPLE CHOICE

1. FARMING A farmer is planting corn and soybeans in the rectangular field shown. The farmer spends $\$ .09$ per square yard to plant corn and $\$ .07$ per square yard to plant soybeans. How much money will the farmer spend on planting if the soybean section has a length of 300 yards? TEKS 8.7.B

(A) $\$ 6000$
(B) $\$ 6800$
(C) $\$ 10,400$
(D) $\$ 11,000$
2. PENTATHLON The modern pentathlon consists of 5 events, including a distance run. For the men's run, each athlete starts with 1000 points and earns 2 points for every 0.5 second under a finishing time of 10 minutes and -2 points for every 0.5 second over a finishing time of 10 minutes. If an athlete finishes the run in 10 minutes 34 seconds, how many points does he earn? TEKS $a .1$
(F) 864 points
(G) 932 points
(H) 1068 points
(J) 1136 points
3. BASEBALL The table shows the average cost of three items at a baseball stadium in 2002 and 2004. What is the change in the average amount spent from 2002 to 2004 if 2 of each item are bought? TEKS a. 6

| Item | Cost in 2002 | Cost in 2004 |
| :--- | :---: | :---: |
| Ticket | $\$ 20.44$ | $\$ 17.90$ |
| Soda | $\$ 2.75$ | $\$ 2.00$ |
| Hot dog | $\$ 2.75$ | $\$ 2.75$ |

(A) $\$ 3.29$
(B) $\$ 5.08$
(C) $\$ 6.58$
(D) $\$ 7.88$
4. STORAGE BINS Your friend is comparing two 6 -sided cubic storage bins. The yellow bin has a surface area of 96 square feet and costs $\$ 23.04$. The blue bin has a surface area of 73.5 square feet and costs $\$ 17.15$. Which bin costs less per cubic foot and by approximately how much less than the other bin? TEKS 8.7.B
(F) The yellow bin, by $\$ .04 / \mathrm{ft}^{3}$
(G) The yellow bin, by $\$ .01 / \mathrm{ft}^{3}$
(H) The blue bin, by $\$ .04 / \mathrm{ft}^{3}$
(J) The blue bin, by $\$ .01 / \mathrm{ft}^{3}$
5. TROPOSPHERE The troposphere is the lowest layer of Earth's atmosphere. The temperature at Earth's surface is approximately $15^{\circ} \mathrm{C}$ and changes by about $-0.0065^{\circ} \mathrm{C}$ for every meter of increase in elevation. What is the approximate temperature of the troposphere at 10,000 meters above the surface? TEKS $a .4$
(A) $-65^{\circ} \mathrm{C}$
(B) $-50^{\circ} \mathrm{C}$
(C) $-6.5^{\circ} \mathrm{C}$
(D) $8.5^{\circ} \mathrm{C}$
6. AQUARIUM A designer is creating an aquarium in the shape of a rectangular prism with a square base. The aquarium will have a height of 35 centimeters and a volume of 17,500 cubic centimeters. Which of the following is the best approximation of the side length of the base? TEKS a.1
(F) 20 cm
(G) 22 cm
(H) 23 cm
(J) 25 cm

## GRIDDED ANSWER

7. RUGS The table shows the areas of two square rugs. How many inches longer is the side length of the sorrel rug than the side length of the shaw rug? TEKS a. 1

| Type of rug | Area (in. ${ }^{2}$ ) |
| :--- | :---: |
| Sorrel rug | 8281 |
| Shaw rug | 7744 |

