28. CHALLENGE The table shows the height h (in feet) that a pole vaulter's center of gravity reaches for various running speeds s (in feet per second) at the moment the pole vaulter launches himself into the air.

Running speed, s (ft/sec)	30	31	32	33	34
Height of center of gravity, h (ft)	$14\frac{1}{16}$	$15\frac{1}{64}$	16	$17\frac{1}{64}$	$18\frac{1}{16}$

a. A pole vaulter is running at $31\frac{1}{2}$ feet per second when he launches himself into the air. Find the height that the pole vaulter's center of gravity reaches.

b. Find the speed at which the pole vaulter needs to be running when he launches himself into the air in order for his center of gravity to reach a height of 19 feet. Round your answer to the nearest foot per second.
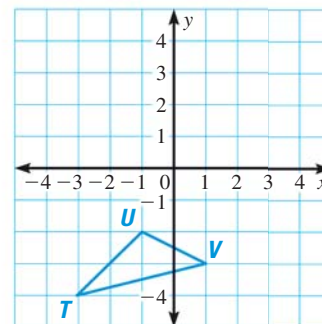

MIXED REVIEW FOR TAKS

29. ◆ **TAKS PRACTICE** $\triangle TUV$ is shown at the right. Find the coordinates of the vertices of the image of $\triangle TUV$ reflected across the y-axis. *TAKS Obj. 6*

Ⓐ $(-4, 3), (-2, 1), (-3, -1)$

Ⓑ $(-3, -4), (-1, 2), (1, 3)$

Ⓒ $(3, -4), (1, -2), (-1, -3)$

Ⓓ $(4, -3), (2, -1), (3, 1)$

QUIZ *for Lessons 10.7–10.8*

Tell whether the equation has *two solutions*, *one solution*, or *no solution*. *(p. 678)*

1. $x^2 + x + 5 = 0$ **2.** $5x^2 + 4x - 1 = 0$

Find the number of x-intercepts of the graph of the function. *(p. 678)*

3. $y = -3x^2 + 4x - 2$ **4.** $y = \frac{4}{9}x^2 + 4x + 9$

Tell whether the table of values represents a *linear function*, an *exponential function*, or a *quadratic function*. Then write an equation for the function. *(p. 684)*

5.

x	-6	-3	0	3	6
y	-9	-2.25	0	-2.25	-9

6.

x	1	2	3	4	5
y	5	1	$\frac{1}{5}$	$\frac{1}{25}$	$\frac{1}{125}$