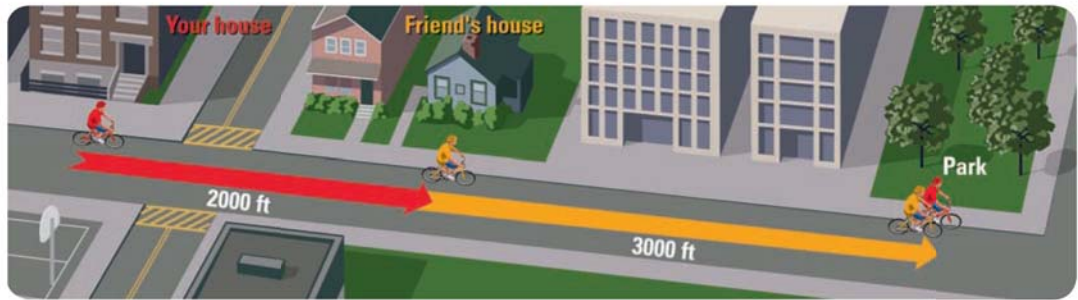


39. **TAKS REASONING** The table below gives the winning times (in seconds) in the Olympic 100 meter freestyle swimming event for the period 1972–2000.

Years since 1972, $x$	0	4	8	12	16	20	24	28
Men's time, $m$	51.2	50.0	50.4	49.8	48.6	49.0	48.7	48.3
Women's time, $w$	58.6	55.7	54.8	55.9	54.9	54.6	54.4	53.8

- Use a graphing calculator to fit a line to the data pairs  $(x, m)$ .
  - Use a graphing calculator to fit a line to the data pairs  $(x, w)$ .
  - Graph the lines and predict when the women's performance will catch up to the men's performance.
  - Do you think your prediction from part (c) is reasonable? *Explain.*
40. **CHALLENGE** Your house and your friend's house are both on a street that passes by a park, as shown below.



At 1:00 P.M., you and your friend leave your houses on bicycles and head toward the park. You travel at a speed of 25 feet per second, and your friend also travels at a constant speed. You both reach the park at the same time.

- Write and graph an equation giving your distance  $d$  (in feet) from the park after  $t$  seconds.
- At what speed does your friend travel to the park? *Explain* how you found your answer.
- Write an equation giving your friend's distance  $d$  (in feet) from the park after  $t$  seconds. Graph the equation in the same coordinate plane you used for part (a).

**TAKS PRACTICE** at [classzone.com](http://classzone.com)

## MIXED REVIEW FOR TAKS

**REVIEW**  
Lesson 2.4;  
TAKS Workbook

41. **TAKS PRACTICE** A realtor earns a base salary of \$31,000 plus 2.5% of the value of any real estate sold. Which equation best represents the realtor's total salary,  $s$ , in terms of the value,  $x$ , of the real estate sold? **TAKS Obj. 1**
- (A)  $s = 31,000 - 0.025x$                       (B)  $s = 31,000x + 0.025$   
 (C)  $s = 31,000 + 0.025x$                       (D)  $s = 31,000 + 2.5x$

**REVIEW**  
Skills Review  
Handbook p. 995;  
TAKS Workbook

42. **TAKS PRACTICE** In  $\triangle MNP$ , the measure of  $\angle M$  is  $40^\circ$ . The measure of  $\angle N$  is four times the measure of  $\angle P$ . What is  $m\angle P$ ? **TAKS Obj. 6**
- (F)  $28^\circ$                       (G)  $35^\circ$                       (H)  $45^\circ$                       (J)  $112^\circ$