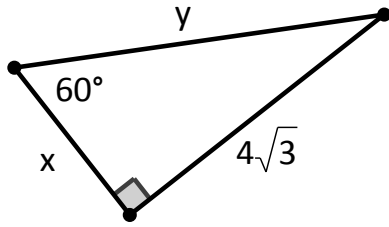
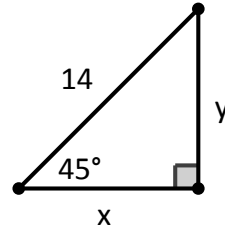


7. Find the values of x and y , in *simplest radical form*.

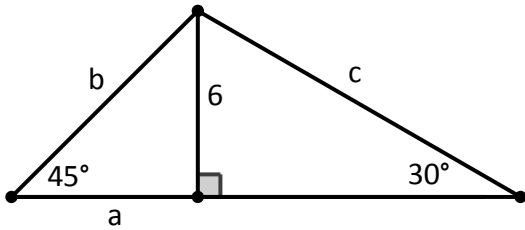
a.



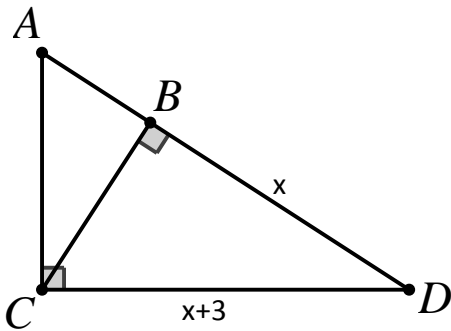
b.



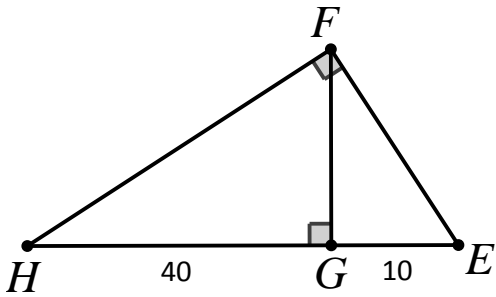
8. Find a , b , and c in *simplest radical form*.



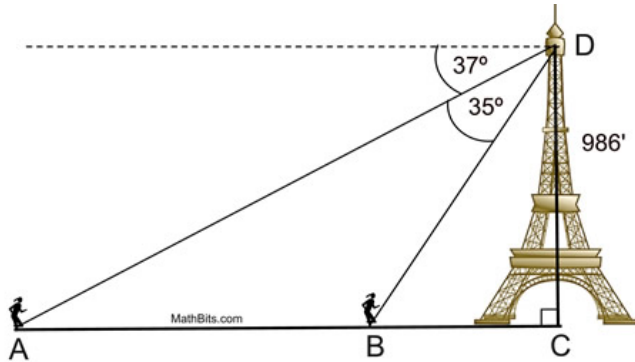
9. If $CD = x + 3$, $BD = x$ and $AD = 12$, find the value of x .



10. If $EG = 10$ and $GH = 40$, find FG .



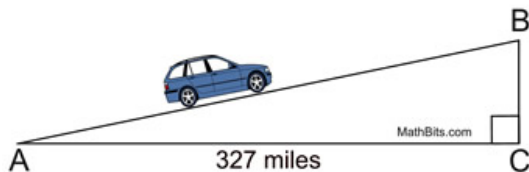
11. From the top of the Eiffel Tower, a jogger is spotted heading toward the tower. At 2 pm, the angle of depression of the jogger (A) was measured to be 37° . Four minutes later, (B), when measured again, the angle of depression had increased by 35° .



- Find the distance that the jogger traveled to the nearest foot.
- Use your answer to part (a) to find the average speed of the jogger to the nearest foot per minute.

12. A car travels along an inclined road, in the desert, at 55 mph for 6 hours, from point A to point B.

- If the horizontal distance of this section of the road is 327 miles, what is the **angle of elevation** of the road to the nearest hundredth of a degree?



cross section of the road

- Using the answer from part a, find the vertical distance (height) of the road, BC, to the nearest hundredth of a mile.