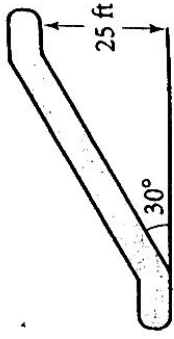
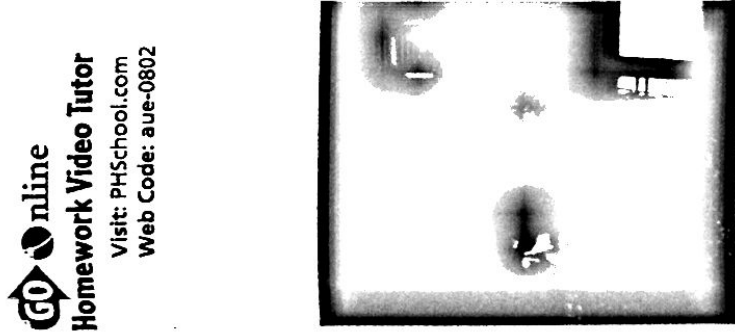
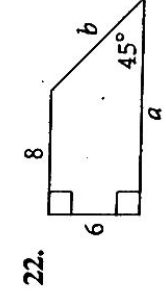
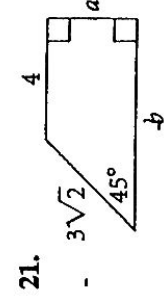
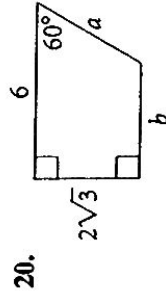
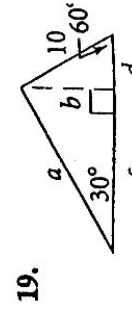
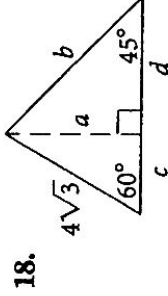


15. **Architecture** An escalator lifts people to the second floor, 25 ft above the first floor. The escalator rises at a 30° angle. How far does a person travel from the bottom to the top of the escalator?



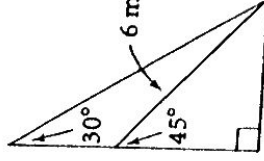
16. **City Planning** Jefferson Park sits on one square city block 300 ft on each side. Sidewalks join opposite corners. About how long is each diagonal sidewalk?

B Apply Your Skills x^2 Algebra Find the value of each variable. Leave your answer in simplest radical form



25. **Farming** A conveyor belt carries bales of hay from the ground to the barn loft 24 ft above the ground. The belt makes a 60° angle with the ground.
 a. How far does a bale of hay travel from one end of the conveyor belt to the other? Round your answer to the nearest foot.
 b. The conveyor belt moves at 100 ft/min. How long does it take for a bale of hay to go from the ground to the barn loft?

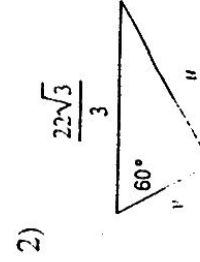
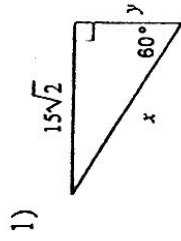
26. **House Repair** After heavy winds damaged a farmhouse, workers placed a 6-m brace against its side at a 45° angle. Then, at the same spot on the ground, they placed a second, longer brace to make a 30° angle with the side of the house.
 a. How long is the longer brace? Round your answer to the nearest tenth of a meter.
 b. About how much higher on the house does the longer brace reach than the shorter brace?



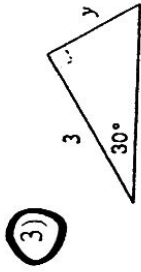
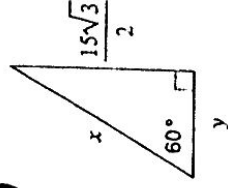
30-60-90 Triangles

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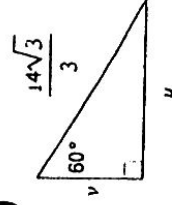
Find the missing side lengths. Leave your answers as radicals in simplest form.



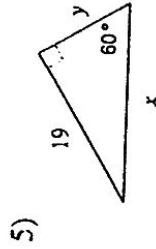
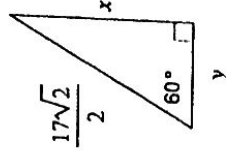
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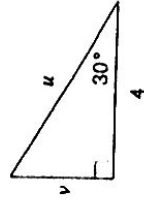
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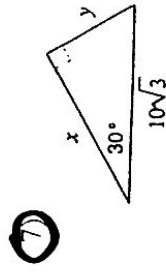
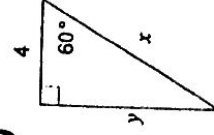
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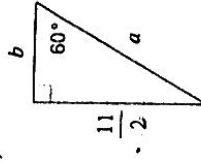
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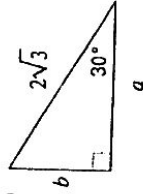
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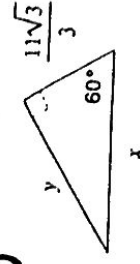
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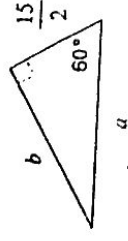
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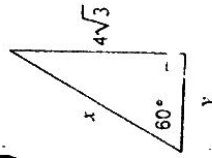
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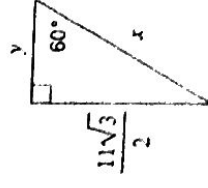
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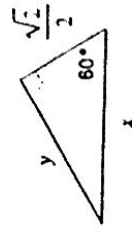
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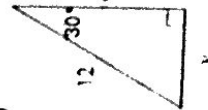
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