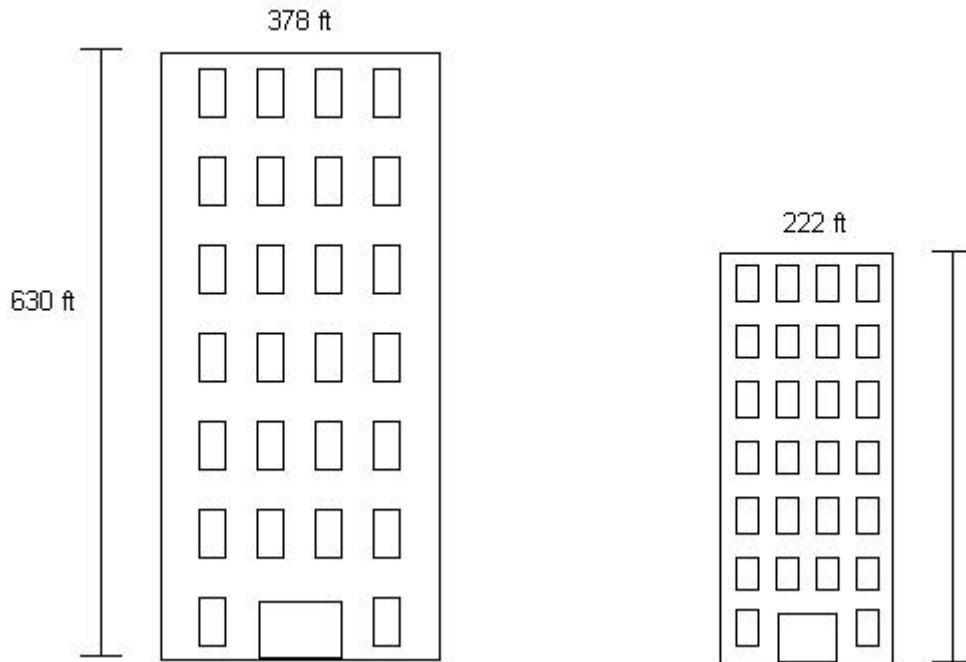


Proportion & Scale

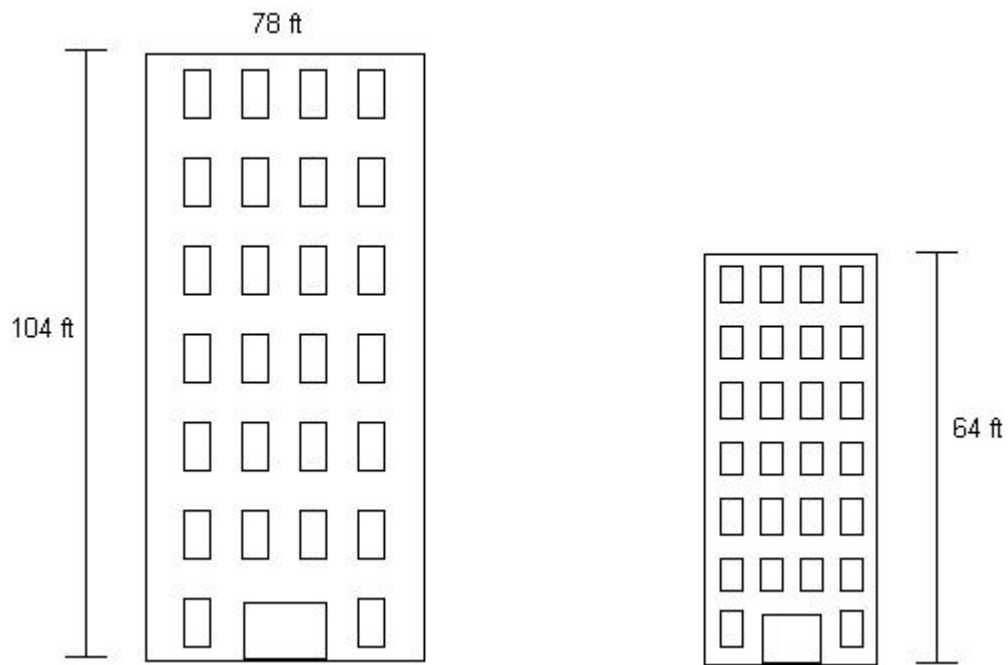
1. Below are drawings of two apartment buildings in downtown Chicago. They are similarly proportioned, but different in size.



What is the height of the smaller building?

- a) 133 ft
- b) 440 ft
- c) 1072 ft
- d) 370 ft

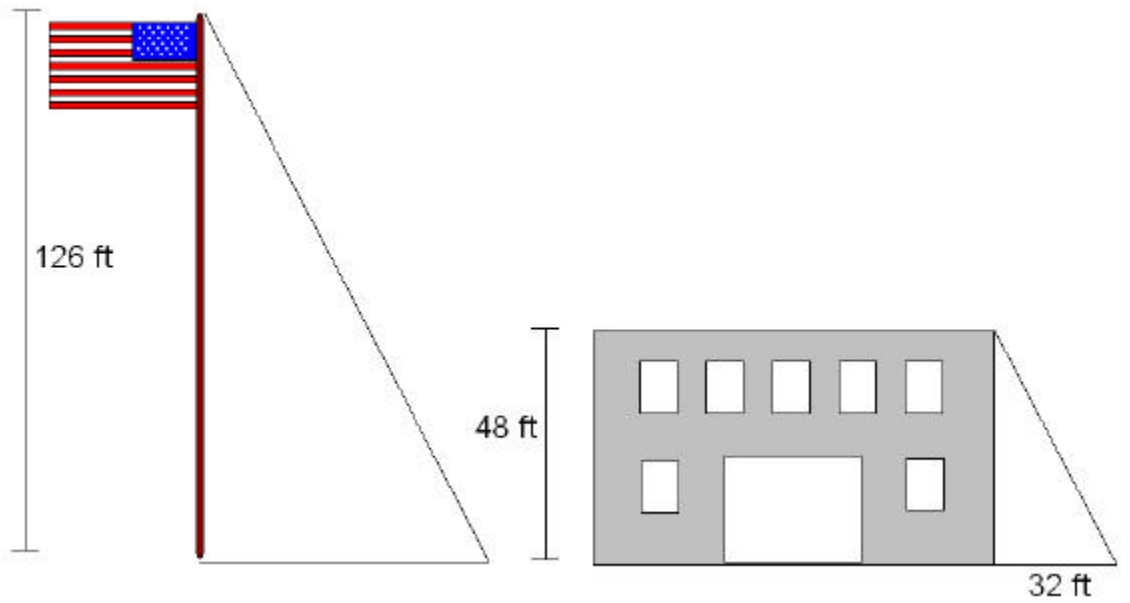
2. Below are drawings of two apartment buildings in downtown St. Louis. They are similarly proportioned, but different in size.



What is the length of the smaller building?

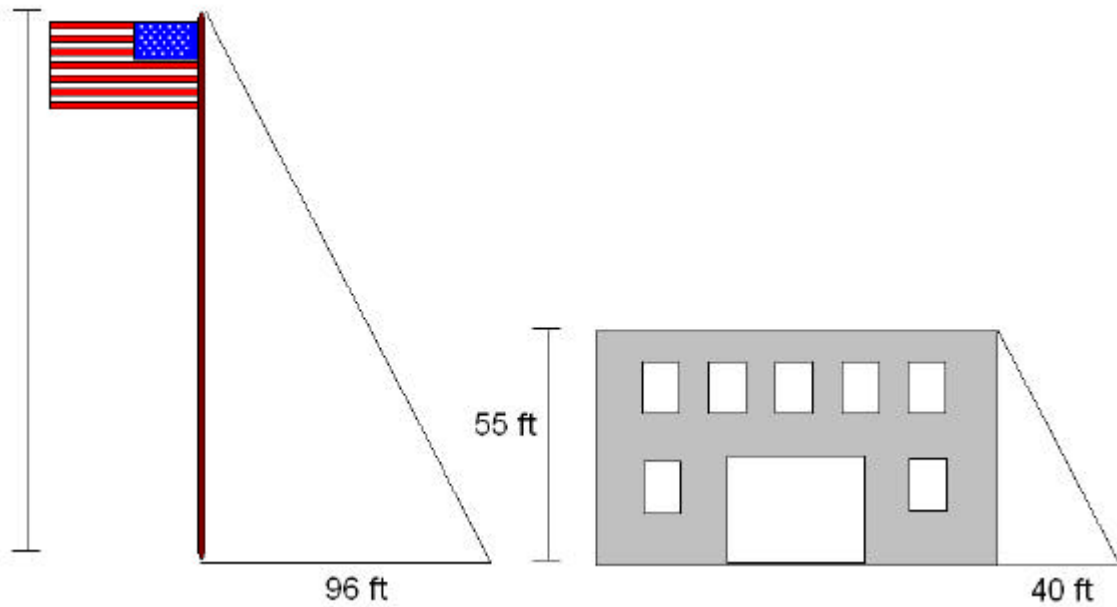
- a) 38 ft
- b) 85 ft
- c) 48 ft
- d) 24 ft

3. A building that measures 48 feet tall casts a shadow 32 feet long. How long of a shadow would a flag cast if it was 126 feet tall?



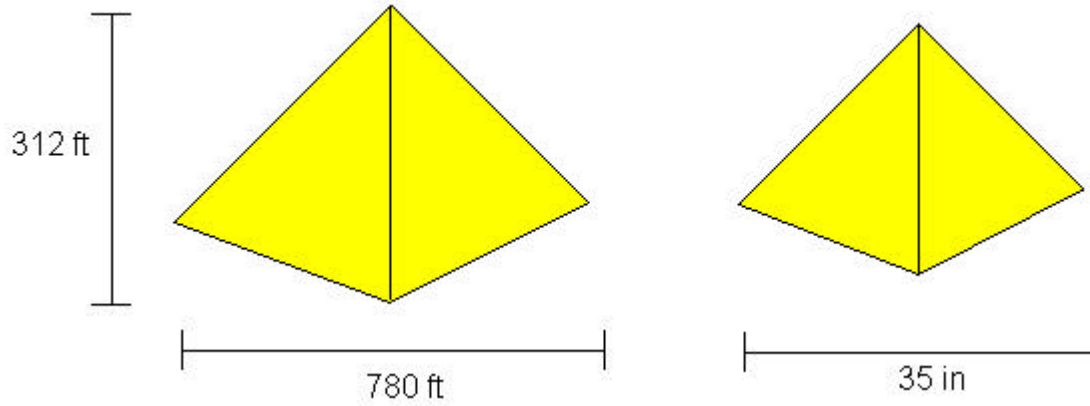
- a) 110 ft
- b) 189 ft
- c) 84 ft
- d) 78 ft

4. A building that measures 55 feet tall casts a shadow 40 feet long. If the flag casts a shadow 96 feet long, how tall is the building?



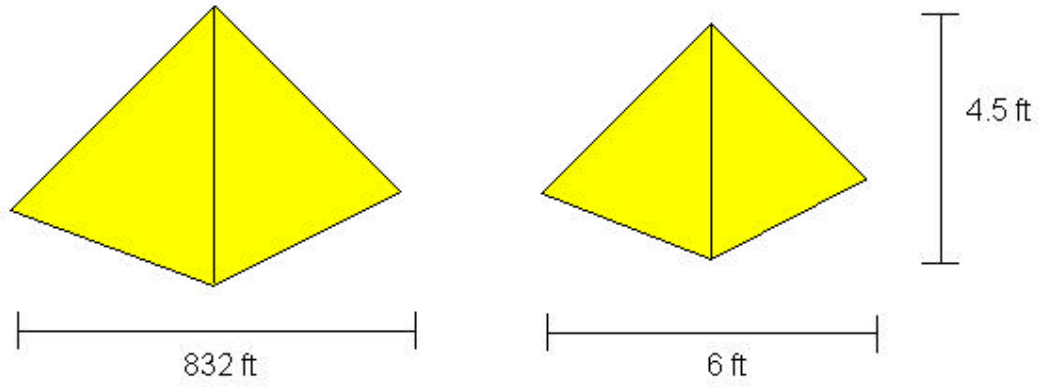
- a) 132 ft
- b) 70 ft
- c) 111 ft
- d) 152 ft

5. Marvin is trying to build a scale replica of one of the ancient pyramids. The pyramid measures 780 feet long and 312 feet in height. If Marvin's replica is 35 inches long, how tall should be his model?



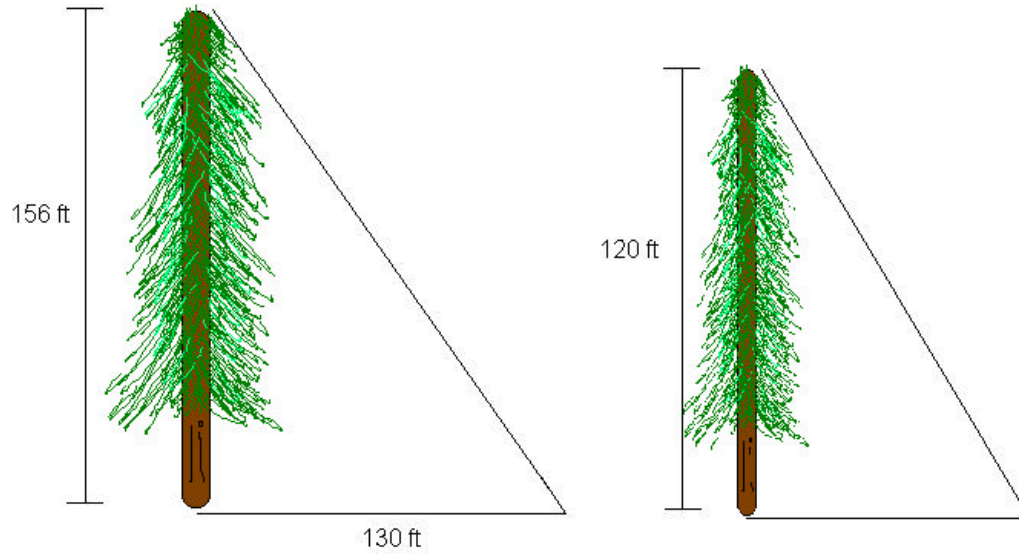
- a) 87 in
- b) 14 in
- c) 2.5 ft
- d) 16 in

6. A museum replica of one of the ancient pyramids is 6 feet long and 4.5 feet tall. If this model is to scale, and the real pyramid is 832 feet long, how tall is the real pyramid?



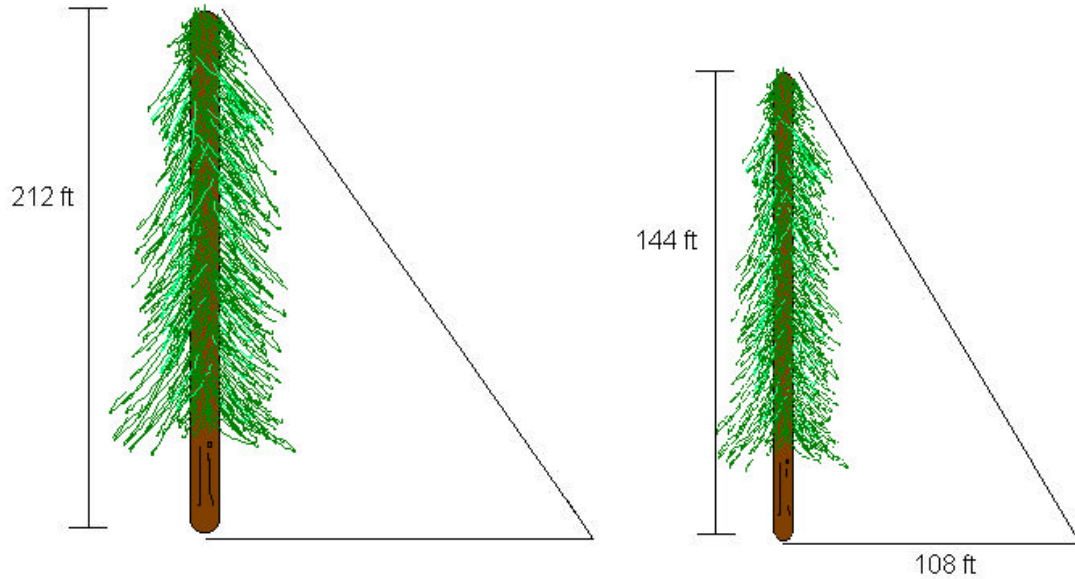
- a) 682 ft
- b) 1109 ft
- c) 830.5 ft
- d) 624 ft

7. One tree in the forest is 156 feet tall and casts a shadow 130 feet long. Another tree in the same forest is 120 feet tall. How long of a shadow would that tree cast at the same time of day?



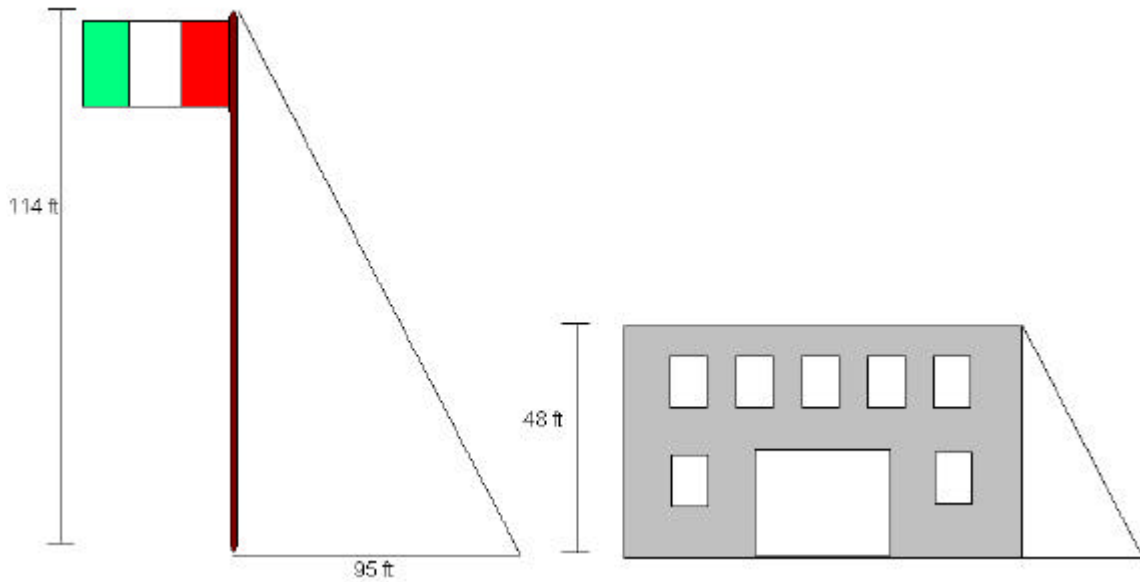
- a) 94 ft
- b) 100 ft
- c) 144 ft
- d) 169 ft

8. A tree in the forest that is 144 feet tall casts a shadow 108 feet long. Another tree in the same forest is 212 feet tall. How long of a shadow would that tree cast at the same time of day?



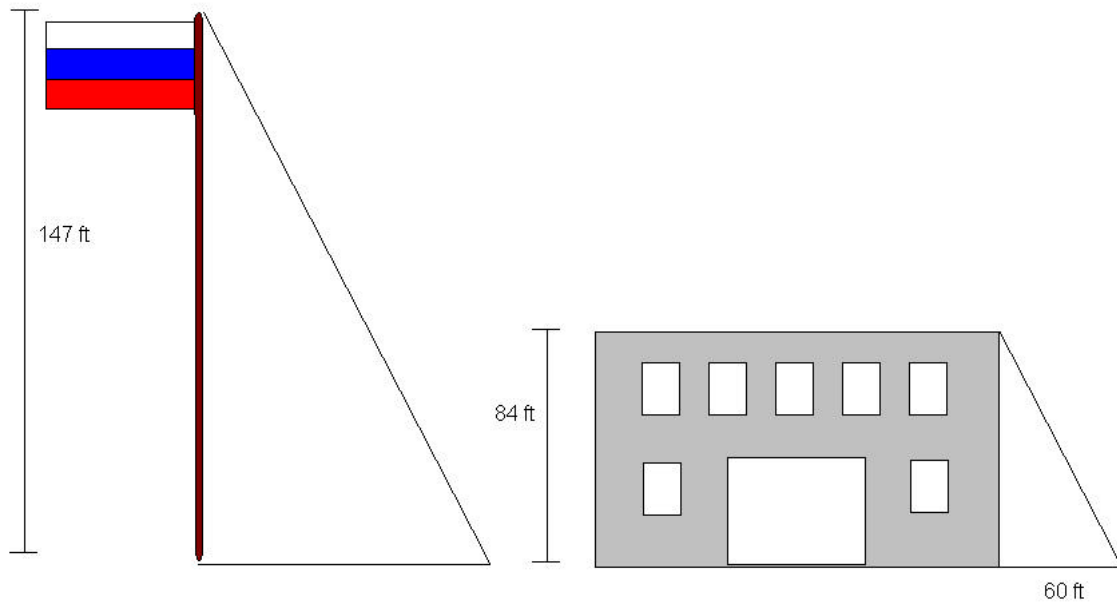
- a) 283 ft
- b) 176 ft
- c) 188 ft
- d) 159 ft

9. A flag that is 114 feet tall casts a shadow 95 feet long. A building nearby is 48 feet tall. How long a shadow will the building cast in the same sunlight?



- a) 40 ft
- b) 29 ft
- c) 58 ft
- d) 56 ft

10. A building that is 84 feet tall casts a shadow 60 feet long. Outside of the building is a flagpole that stands 147 feet tall. Find the length of the flagpole's shadow.



- a) 123 ft
- b) 125 ft
- c) 105 ft
- d) 206 ft

11. The Gilbert High School basketball team won 5 of their first 7 games. How many games should they expect to win if they play 28 games in the season?

- a) 9
- b) 21
- c) 18
- d) 20

12. Casey and Erika have a lemonade stand. They made 45 dollars in their first 9 days running the stand. How much money can they expect to earn in 30 days?

- a) \$13.50
- b) \$150
- c) \$120
- d) \$6

13. Robert bought a scale model of the Eiffel Tower. The scale model was 12 inches tall and 3 inches wide at the base. Robert discovered that the real Eiffel Tower is 984 feet tall. If the scale model is accurate, how wide is the real Eiffel Tower?

- a) 246 feet
- b) 975 feet
- c) 328 feet
- d) 394 feet

14. Harry and Rupert were on a road trip. They were driving from Minneapolis to New York, which is a distance of 1206 miles. If they traveled 268 miles in 4 hours, how long will it take them to get to New York?

- a) 17 hours
- b) 17.5 hours
- c) 18 hours
- d) 18.5 hours

15. While at college, David ate 15 hamburgers in the first 3 weeks. If one school year is 42 weeks long, how many hamburgers should David expect to eat?

- a) 47 hamburgers
- b) 126 hamburgers
- c) 168 hamburgers
- d) 210 hamburgers

16. Stephanie is organizing a fundraiser for the Special Olympics. During the first 7 days of her fundraising, she accumulated \$87.50. How many days will it take her to raise \$1000?

- a) 80 days
- b) 125 days
- c) 143 days
- d) 14 days

17. World renowned director Xavier Johnson has won 4 Academy Awards in his first 14 motion pictures. If his goal is to win 10 academy awards, how many films would he have to direct?

- a) 32 films
- b) 35 films
- c) 28 films
- d) 40 films

18. Boxing heavyweight champion Johnny "Reck'em" Richmond has won 45 matches, 36 of them by knockout. If he fought and won 60 matches, how many matches should he expect to win by knockout?

- a) 45 knockouts
- b) 51 knockouts
- c) 42 knockouts
- d) 48 knockouts

19. When tickets for N'Rhythm went on sale, they sold 4,560 tickets in the first 8 minutes. If the arena where they will be playing seats 18, 240 people, how many minutes will it takes for the concert to sell out?

- a) 256 minutes
- b) 48 minutes
- c) 32 minutes
- d) 12 minutes

20. The Milwaukee Avengers professional baseball team had 6 winning seasons over their first thirty years. How many winning seasons can the Avengers expect over the next seventy years?

- a) 14
- b) 12
- c) 17
- d) 24