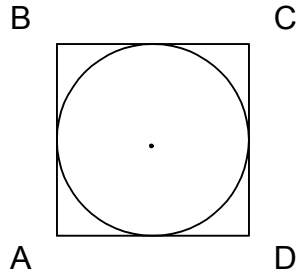
CAHSEE Mathematics

Workbook
Student Edition

For Math

CAHSEE Bench Mark Practice 21

1.

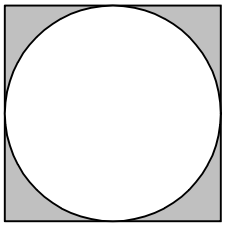


In the figure above, the radius of the inscribed circle is 12 inches (in.). What is the perimeter of the square ABCD?

a. 48π in. **b.** 96 in.

c. 72π in. **d.** 48 in.

2.



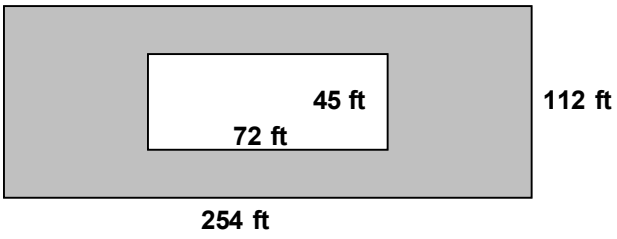
The largest possible circle is to be cut from a 30-inch square board. What will be the approximate area, in square inches, of the remaining board (shaded region)?

($A = \pi r^2$ and $\pi \approx 3.14$)

a. 190 **b.** 210

c. 230 **d.** 250

3.

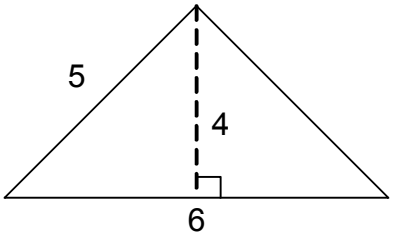


A rectangular pool 72 feet by 45 feet is on a rectangular lot 254 feet by 112 feet. The rest of the lot is grass. Approximately how many square feet is grass?

a. 2,300 **b.** 25,200

c. 2,500 **d.** 27,900

4.

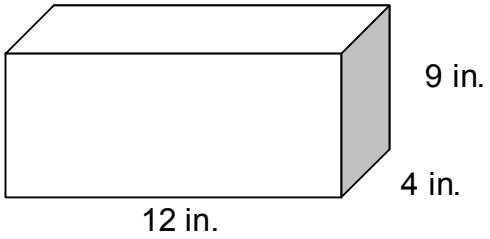


What is the area of the triangle shown above?

a. 10 square units **b.** 12 square units

c. 8 square units **d.** 6 square units

5.

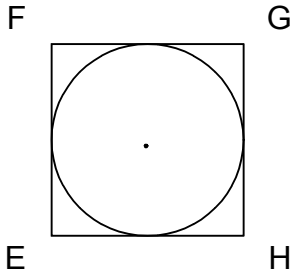


What is the volume of the box shown above in cubic inches ($in.^3$)?

a. 25 **b.** 48

c. 346 **d.** 432

6.



In the figure above, the radius of the inscribed circle is 18 inches (in.). What is the perimeter of the square EFGH?

a. 144 in. **b.** 72 in.

c. 108π in. **d.** 72π in.

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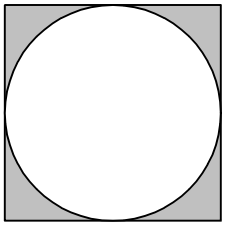
7.



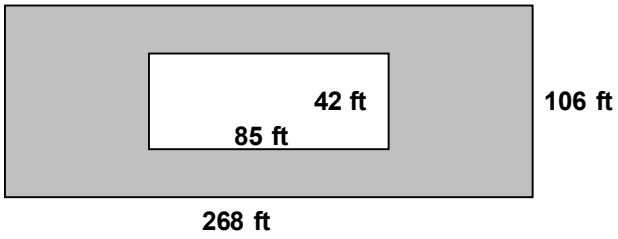
The largest possible circle is to be cut from a 5-foot square board. What will be the approximate area, in square feet, of the remaining board (shaded region)?

($A = \pi r^2$ and $\pi \approx 3.14$)

a. 3 **b.** 4

c. 5 **d.** 6

8.

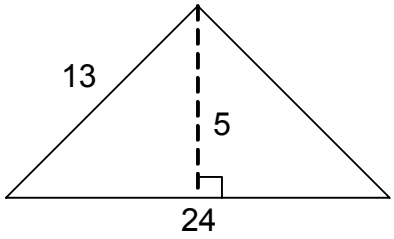


A rectangular pool 85 feet by 42 feet is on a rectangular lot 268 feet by 106 feet. The rest of the lot is grass. Approximately how many square feet is grass?

a. 24,800 **b.** 25,900

c. 2,500 **d.** 2,900

9.

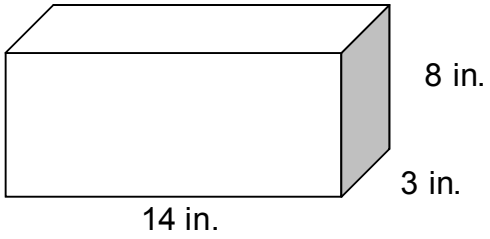


What is the area of the triangle shown above?

a. 42 square units **b.** 60 square units

c. 312 square units **d.** 120 square units

10.

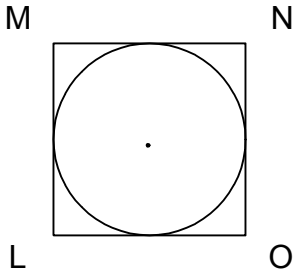


What is the volume of the box shown above in cubic inches ($in.^3$)?

a. 25 **b.** 126

c. 123 **d.** 336

11.

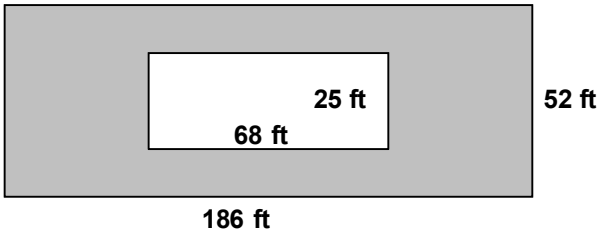


In the figure above, the radius of the inscribed circle is 10 inches (in.). What is the perimeter of the square LMNO?

a. 100π in. **b.** 80π in.

c. 100 in. **d.** 80 in.

12.



A rectangular pool 68 feet by 25 feet is on a rectangular lot 186 feet by 52 feet. The rest of the lot is grass. Approximately how many square feet is grass?

a. 8,000 **b.** 26,000

c. 6,500 **d.** 12,400

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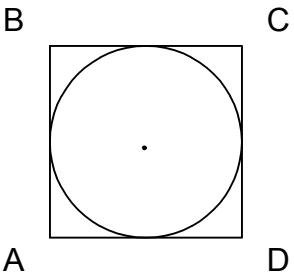
13.

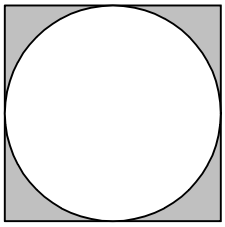


In the figure above, the radius of the inscribed circle is 6 inches (in.). What is the perimeter of the square ABCD?

a. 48π in. **b.** 96 in.

c. 72π in. **d.** 48 in.

14.



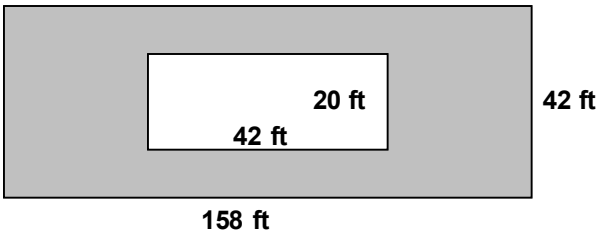
The largest possible circle is to be cut from a 24-inch square board. What will be the approximate area, in square inches, of the remaining board (shaded region)?

($A = \pi r^2$ and $\pi \approx 3.14$)

a. 124 **b.** 168

c. 96 **d.** 110

15.

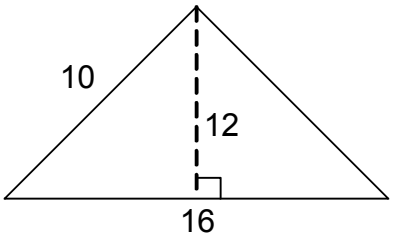


A rectangular pool 42 feet by 20 feet is on a rectangular lot 158 feet by 42 feet. The rest of the lot is grass. Approximately how many square feet is grass?

a. 6,300 **b.** 10,200

c. 5,800 **d.** 7,900

16.

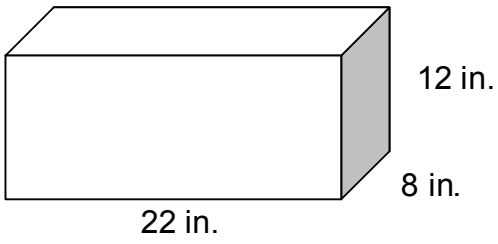


What is the area of the triangle shown above?

a. 96 square units **b.** 192 square units

c. 160 square units **d.** 80 square units

17.

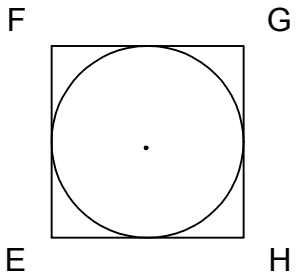


What is the volume of the box shown above in cubic inches ($in.^3$)?

a. 25 **b.** 2,112

c. 564 **d.** 1,056

18.



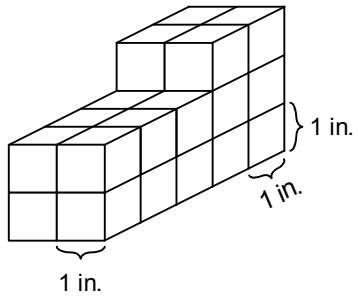
In the figure above, the radius of the inscribed circle is 36 inches (in.). What is the perimeter of the square EFGH?

a. 288 in. **b.** 316 in.

c. 176π in. **d.** 144π in.

CAHSEE Bench Mark Practice 22

1. One-inch square cubes are stacked as shown in the drawing below.

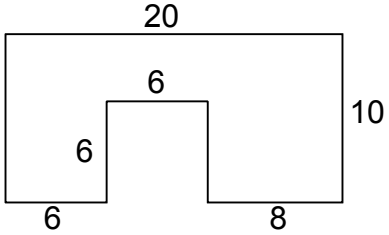


What is the <u>total</u> surface area?

a. 56 in.^{2} **b.** 64 in.^{2}

c. 72 in.^{2} **d.** 80 in.^{2}

2.

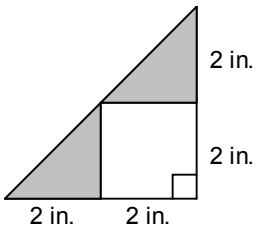


In the figure shown above, all the corners form right angles. What is the area of the figure in square units?

a. 106 **b.** 124

c. 148 **d.** 164

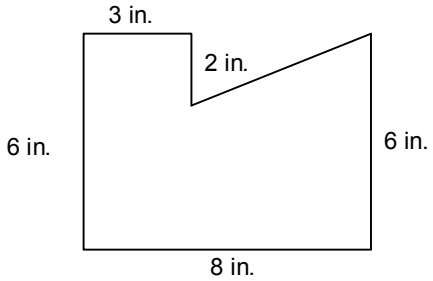
3. What is the area of the shaded region in the figure shown below?



a. 16 in.^{2} **b.** 8 in.^{2}

c. 6 in.^{2} **d.** 4 in.^{2}

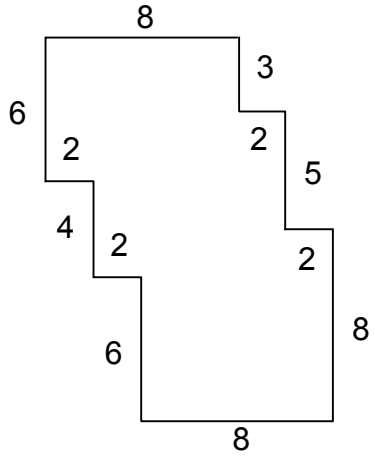
4. A right triangle is removed from a rectangle as shown in the figure below. Find the area of the remaining part of the rectangle .



a. 61 in.^{2} **b.** 52 in.^{2}

c. 47 in.^{2} **d.** 43 in.^{2}

5. In the figure shown below, all the corners form right angles.



What is the area of the figure in square units?

a. 114 **b.** 138

c. 156 **d.** 164

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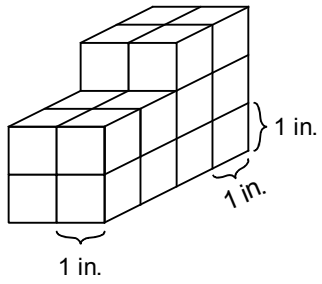
6. One-inch square cubes are stacked as shown in the drawing below.

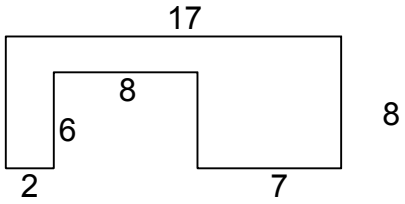


What is the <u>total</u> surface area?

a. 56 in.^{2} **b.** 48 in.^{2}

c. 42 in.^{2} **d.** 36 in.^{2}

7.

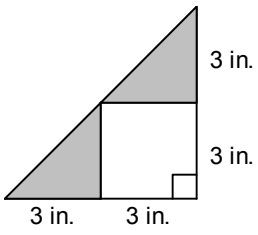


In the figure shown above, all the corners form right angles. What is the area of the figure in square units?

a. 80 **b.** 88

c. 96 **d.** 108

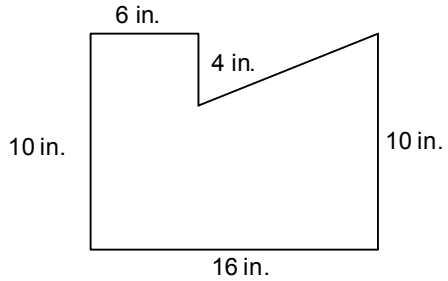
8. What is the area of the shaded region in the figure shown below?



a. 9 in.^{2} **b.** 8 in.^{2}

c. 6 in.^{2} **d.** 10 in.^{2}

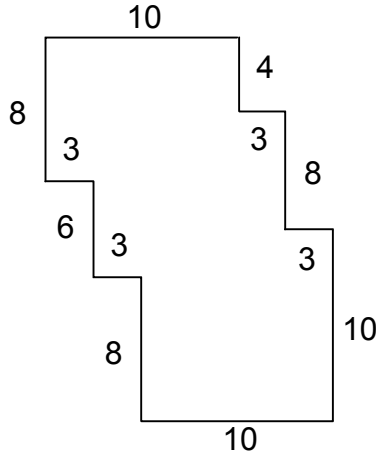
9. A right triangle is removed from a rectangle as shown in the figure below. Find the area of the remaining part of the rectangle .



a. 100 in.^{2} **b.** 120 in.^{2}

c. 140 in.^{2} **d.** 160 in.^{2}

10. In the figure shown below, all the corners form right angles.



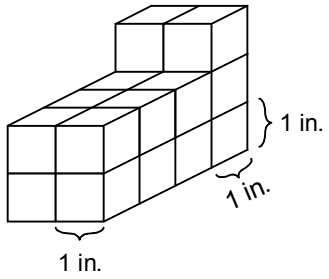
What is the area of the figure in square units?

a. 224 **b.** 238

c. 188 **d.** 164

CAHSEE Bench Mark Practice 22

11. One-inch square cubes are stacked as shown in the drawing below.

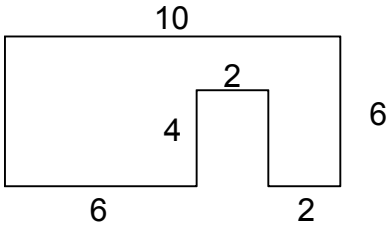


What is the <u>total</u> surface area?

a. 46 in.^{2} **b.** 52 in.^{2}

c. 64 in.^{2} **d.** 78 in.^{2}

12.

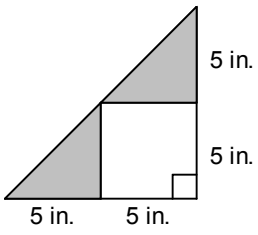


In the figure shown above, all the corners form right angles. What is the area of the figure in square units?

a. 78 **b.** 64

c. 52 **d.** 44

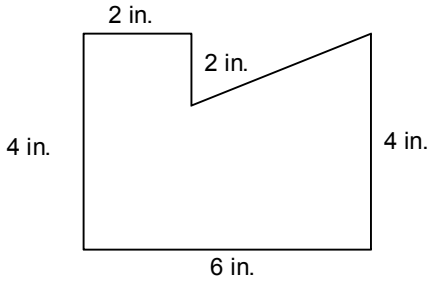
13. What is the area of the shaded region in the figure shown below?



a. 10 in.^{2} **b.** 25 in.^{2}

c. 50 in.^{2} **d.** 40 in.^{2}

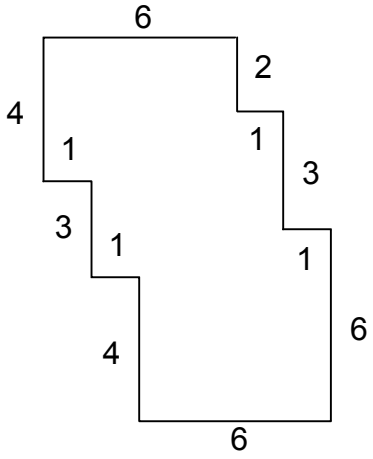
14. A right triangle is removed from a rectangle as shown in the figure below. Find the area of the remaining part of the rectangle .



a. 16 in.^{2} **b.** 34 in.^{2}

c. 28 in.^{2} **d.** 20 in.^{2}

15. In the figure shown below, all the corners form right angles.



What is the area of the figure in square units?

a. 64 **b.** 52

c. 70 **d.** 40