## GEOMETRY Grade 6

1) What is the area of the figure belo $1 \sim 10$

12 ft


8 ft
A) 56 sq. feet
B) 60 sq. feet
C) $\quad 72$ sq. feet
D) 36 sq. feet
2) A polygon is made up of a square and a triangle. The total area of the figure is 30 sq . cm . The area of the triangle is $14 \mathrm{sq} . \mathrm{cm}$. What is the length of the side of the square?

A) Not enough information is given
B) 4 cm
C) 16 cm
D) 64 cm
3) Three coordinates of a quadrilateral are (5,3), (-5, 3) and (-5,-3). What are the coordinates of the fourth corner?
A) $(0,5)$
B) $(5,-3)$
C) $(-3,5)$
D) $(3,-5)$
4) Which of the following nets will NOT make a cube?

A)
B)

C)
D)
5) An open storage box is shaped below, but has no top. The base of the box is a square with a side length 8 in . and the height of the box is 12 in . What is the surface area of the box?


8 in
A) $\quad 512$ sq. in
B) $\quad 640 \mathrm{sq}$. in.
C) $\quad 448 \mathrm{sq}$. in
D) $\quad 144$ sq. in
6) A child's sandbox is 6 ft . wide, 3 ft . long, and 2 ft . deep. The child's mother fills the sandbox so that it is $1 \frac{1}{2}$ feet deep. What is the volume of the sand in the box?
A) 27 cubic feet
B) 36 cubic feet
D) $7 \frac{1}{2}$ cubic feet
D) 20 cubic feet
7) A rectangular pool is 12 feet long and 6.5 feet wide. If the volume of the water is 702 cubic feet deep, how deep is the water?
A) $\quad 8.5 \mathrm{ft}$
B) $\quad 9 \mathrm{ft}$.
C) $\quad 12 \mathrm{ft}$
D) $\quad 7 \mathrm{ft}$.
8) The new playground below needs covering. How much covering will be needed?

A) 342 sq. yds.
B) $\quad 180 \mathrm{sq} . \mathrm{yds}$
C) 378 sq. yds.
D) 196 sq. yds.
9) What is the volume of the following figure?

A) 30 cubic units
B) 60 cubic units
C) 12 cubic units
D) 45 cubic units
10) Joe wants to paint the rectangular prism below. If one pint of paint covers 125 sq inches, how many pints of paint will be needed?

7.5 in
A) 6 pints
B) $\quad 12$ pints
C) 5 pints
D) 8 pints
11) Mr. White is trying to store boxes in a storage room with length of 8 ft , width of 5 ft and height of 2 ft . How many boxes can fit in this space if each is box is $2 \frac{1}{4}$ feet long $1 \frac{1}{2}$ feet wide and 1 feet deep?
A) 20 boxes
B) 23 boxes
C) 40 boxes
D) $\quad 80$ boxes
12) A net for a solid contains 4 triangles and 1 square. What is the name of the solid.?
A) triangular prism
B) cube
C) rectangular prism
D) pyramid
13) What happens to the area of this rectangle when the sides are doubled?

A) The area is doubled.
B) The area is tripled.
C) The area is quadrupled
D) The area stays the same
14) A rectangle has an area of $6 x+12$. What are the measurements of the length and width?

width
A) width $=6 x \quad$ length $=(3+4)$
B) width $=6 x \quad$ length $=(3+12)$
C) $\quad$ width $=3 \quad$ length $=(2 x+12)$
D) $\quad$ width $=3 \quad$ length $=(2 x+4)$
15) Mae is seeding her back yard with grass seed. How many square feet must Mae cover with grass seed to seed her back yard?

A) $\quad 144$ sq. ft
B) $\quad 176 \mathrm{sq} \mathrm{ft}$.
B) $\quad 168$ sq. ft
D) 1328 sq. ft
16) If the measure of angle 2 is 105 degrees, what is the measure of angle 1 ?

A) 60 degrees
B) 70 degrees
C) 75 degrees
C) 180 degrees
17) How many yards wide is a rectangle if the length is $\frac{3}{4}$ yard and the area is $\frac{1}{8}$ yard?
A) $\frac{3}{32}$
B) $\frac{1}{6}$
C) $\frac{1}{2}$
D) $\frac{3}{12}$
18) Lucy wraps gifts over the holidays. Each gift box is in the shape of a rectangular prism. Lucy has discovered that a present requires 2 times its surface area in wrapping paper. If she is wrapping a gift that is 2 feet long, 1 foot wide and $\frac{1}{2}$ foot tall, how many square feet of wrapping paper will Lucy need?
A) $\quad 9 \mathrm{sq} \mathrm{ft}$
B) $\quad 14 \mathrm{sq} \mathrm{ft}$
C) 18 sq ft
D) $\quad 21 \mathrm{sq} \mathrm{ft}$.
19) A box has a length of 10 inches, a width of $8 \frac{3}{4}$ inches and a height of $4 \frac{1}{4}$ inches. How many cubnes with a side length of $\frac{1}{4}$ inch will be necessary to fill the box?
A) 23 cubes
B) 371 cubes
D) 1,400 cubes
D) 23,800 cubes

