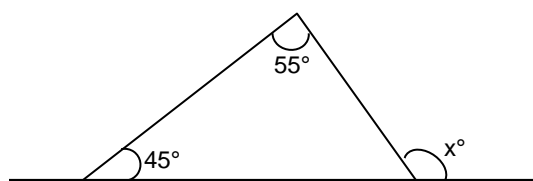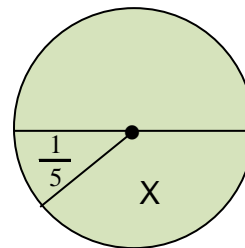1. Find the value of the unmeasured angle (x).

   (1)   40°
   (2)   82°
   (3)   100°
   (4)   105°
   (5)   Not enough information given.

2. Max has an appointment at 4:30 in Pueblo. It takes her one hour and thirty minutes to get there. What time should she leave?
   (1)   2:00
   (2)   2:15
   (3)   2:25
   (4)   2:50
   (5)   3:00

3. Rocky Ford Public Library has 1000 library books. 12% of them need to be repaired. How many library books do **not need to be repaired**?
   (1)   12
   (2)   120
   (3)   800
   (4)   880
   (5)   Not enough information given.

4. The total figure is 100. How much is X?

   (1)   16
   (2)   24
   (3)   40
   (4)   50
   (5)   not enough information given

5. A pair of pants that originally cost $72 is on sale for 15% off. What is the **sale price** of the pants?
   (1) $10.80
   (2) $57.00
   (3) $61.20
   (4) $82.80
   (5) $87.00

6. Which number is in the **thousand place**?
   3,679,542
   (1)   3
   (2)   4
   (3)   6
   (4)   7
   (5)   9

7. A motorcycle tire has a diameter of 36 inches. How many inches will the tire turn in 60 turns or revolutions?
   (1)   113 inches
   (2)   113.04 inches
   (3)   678.24 inches
   (4)   6782 inches
   (5)   6782.4 inches

8. If $h = 10$ and $s = 5$, find the value of $h^2 - s^2$.

    (1)   25
    (2)   75
    (3)   85
    (4)   90
    (5)   125

9. Put the following nails in order from <u>smallest to largest</u>.

    Nail A   .16 centimeters

    Nail B   3 centimeters

    Nail C   3.4 centimeters

    Nail D   3.6 centimeters

    Nail E   4 centimeters

    (1)   ABCED
    (2)   EBCDA
    (3)   BCDEA
    (4)   CDBEA
    (5)   ABCDE

10. A Southwest jet liner gets 26 miles per gallon of fuel. How many miles can it go on 185 gallons of fuel?

11. Each store discounted the prices of its shirts by 20%. Which store would show a sale price of $12.00 on its shirt?

	original price	discount	sale price
Store A	$8.00		
Store B	$15.00		
Store C	$17.00		
Store D	$18.00		
Store E	$20.00		

    (1)   Store A
    (2)   Store B
    (3)   Store C
    (4)   Store D
    (5)   Store E

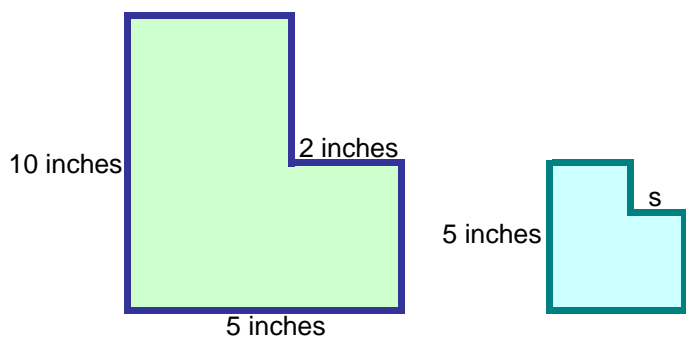12. How many square units is the area of the rectangle below?

    (1)   4
    (2)   5X
    (3)   8X
    (4) $9X^2$
    (5) $10X^2$

13. Find the value of s.

10 inches

2 inches

5 inches

s

5 inches

- (1)   1 cm
- (2)   6 cm
- (3)   7.5 cm
- (4)   8 cm
- (5)   not enough information given

14. Blank DVDs are sold in packages of 20 for $60 or single DVDs for $5 each. Juana bought 1 package of 20 DVDs and 4 single DVDs. **Which expression shows the average price of the DVDs she bought**?

- (1) $60 + 4(5)$
- (2) $5 \times \frac{3}{4}$
- (3) $\dfrac{60}{20} + \dfrac{4}{5}$
- (4) $60 \div 24$

- (5) $\dfrac{(60 + 4 \times 5)}{24}$

15. What is the value of a if $2 \times 3^{a} = 54$?
- (1)   1
- (2)   2
- (3)   3
- (4)   27
- (5)   81

16. Solve the following equation, where $a = 3$, $b = 5$, $c = 1$.

    $b^2 – 4ac$

- (1)   12
- (2)   13
- (3)   33
- (4)   37
- (5)   47

17. In Chicago, 500 voters were polled about building a new high school. 175 were **in favor** of a new high school. If there are 8000 voters, how many would be expected to vote **in favor** of building a new high school?

18. Edna is making 8 skirts and 8 blouses. Based on the following information, how many **total** yards of material will she need?

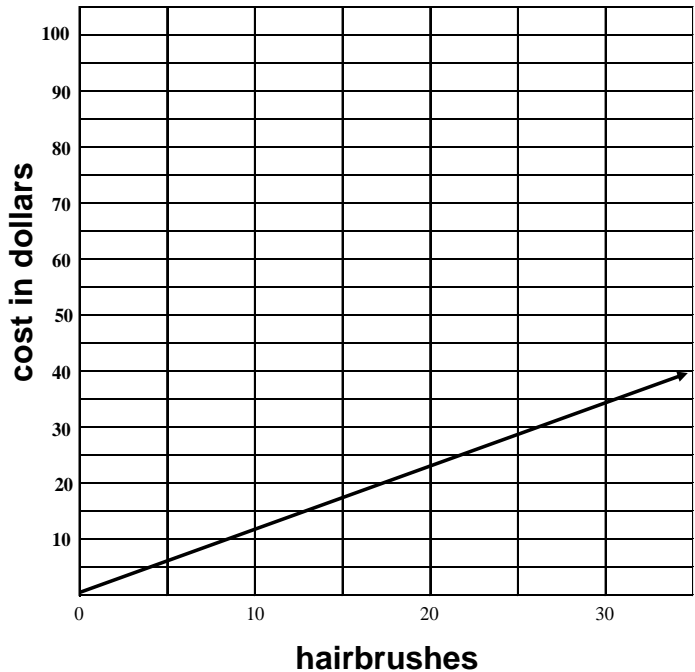| 1 skirt requires	2 yards of material
1 blouse requires	2 ½ yards of material
1 belt requires	½ yard of material

- (1)   16 yards
- (2)   16 ½ yards
- (3)   32 yards
- (4)   36 yards
- (5)   44 yards

19. If 5x + 24 = 11x, what is the value of *x*?

   (1)   3
   (2)   4
   (3)   5
   (4)   6
   (5)   7

20. Last weekend, Joseph went skiing at Monarch Ski Resort. He paid a nonrefundable deposit, plus $5.00 per hour. It cost him a total of $36.00 to rent the skis for 6 hours, including the deposit. How much was the nonrefundable deposit?

   (1) $3.00
   (2) $6.00
   (3) $8.40
   (4) $15.00
   (5) $18.50

21. The ratio of students to computers in the lab is 6 to 4. If there are 210 students, how many computers are there?

22. The staff at The Wright Group bought lottery tickets. The cost of the tickets was $105.00. The cost was to have been split even among ten employees, but three of them decided not to participate. How much more did each of the 7 who participated have to pay because of the 3 who did not participate?

   (1) $4.50
   (2) $5.00
   (3) $5.50
   (4) $5.75
   (5) $6.25

Question 23 refers to the following graph.

HAIR BRUSH PRODUCTION

hairbrushes

23. Based on the graph, approximately, what is the cost to produce 30 hairbrushes?

24. M is a negative number. Which of the following represents a **positive number**?
    - (1) M^3
    - (2) M^2
    - (3) M + M
    - (4) ½ (M)
    - (5) 2 (M)

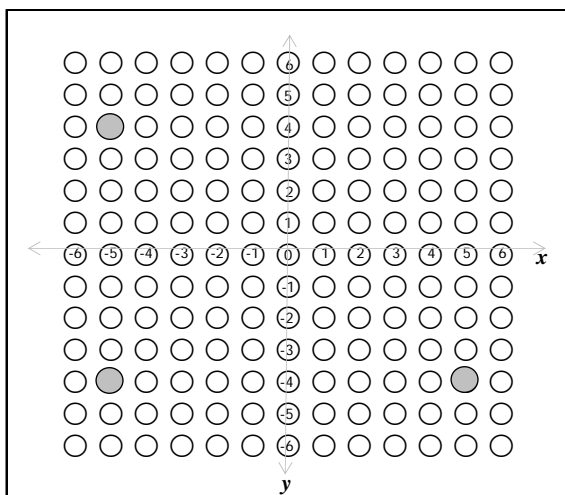25. Solve the following equation.

    h = 16(10)^2
    - (1) 15 feet
    - (2) 20 feet
    - (3) 40 feet
    - (4) 100 feet
    - (5) 1600 feet

26. Find the perimeter of a square that has an area of 196 square yards?

27. What is the location of the 4th vertice in the graph?

28. Points A and B are reflections (mirror images) of one another when the y axis is the line of symmetry. What is the location of the **reflection of point A when the line of symmetry is the x axis**?