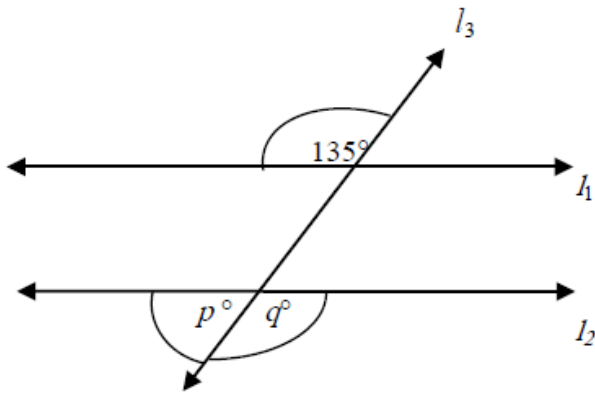


Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

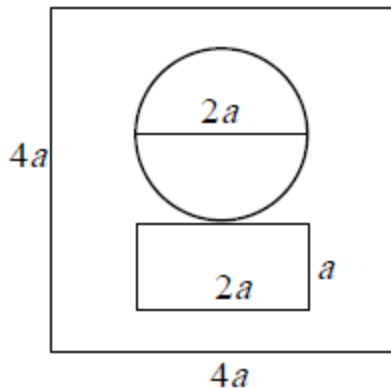
3. In the figure $l_1 \parallel l_2$ and l_3 is a transversal.
What is the value of $q - p$?



- A. 0°
- B. 45°
- C. 55°
- D. 60°
- E. 90°

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

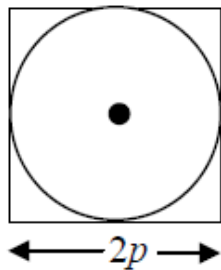
7. A square sheet of metal with sides $4a$ has a circle of diameter $2a$ and a rectangle of length $2a$ and width a removed from it. What is the area of remaining metal?



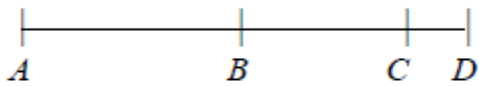
- A. $4a - 4\pi a^2 - 2a^2$
B. $14a^2 - \pi a^2$
C. $14a^2 - 4\pi a^2$
D. $4a^2 + \pi a^2 - a$
E. $4a^2 - 2\pi a^2$

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

11. What is the area between the square and circle shown?



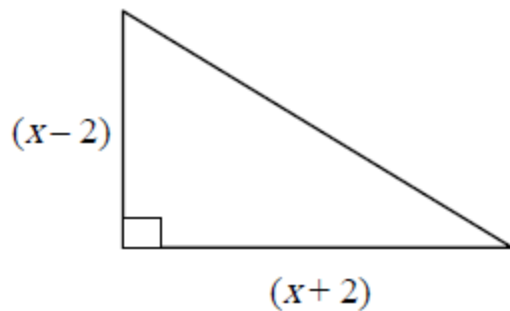
- A. $4p^2(1 - \pi)$
B. $p^2(4 - 2\pi)$
C. $4p^2(1 + \pi)$
D. $p^2(4 - \pi)$
E. $p^2(\pi - 4)$
12. The points A , B , C , and D divide the line segment AD in the ratio $4 : 3 : 1$, respectively, and $AB = 24$ cm. What is the length of BD ?



- F. 12 cm
G. 14 cm
H. 18 cm
J. 19 cm
K. 24 cm

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

16. If the area of the triangle is 8, what is the value of x ?



- F. $5\sqrt{2}$
G. $2\sqrt{5}$
H. $4\sqrt{3}$
J. $2\sqrt{3}$
K. $3\sqrt{2}$
24. What is the equation of the line, in standard form, connecting points $(2, -3)$ and $(4, 4)$?

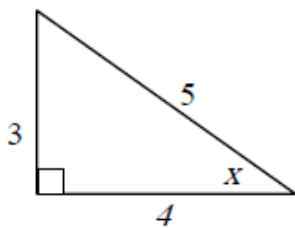
- F. $7x - 2y - 26 = 0$
G. $7x + y - 13 = 0$
H. $7x - 2y - 20 = 0$
J. $2x - 2y - 7 = 0$
K. $3x - y + 10 = 0$

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

25. If quadrilateral $ABCD$ is a parallelogram with an area of 180 square units and a base of 20 units, what is its height?

- A. 9
- B. 5
- C. 4
- D. $3\frac{1}{2}$
- E. $1\frac{1}{4}$

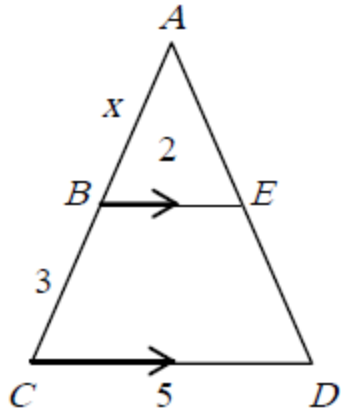
34. According to the diagram, which of the following statements is true?



- F. $\sin x = \frac{5}{3}$
- G. $\cos x = \frac{3}{5}$
- H. $\tan x = \frac{5}{4}$
- J. $\cos x = \frac{4}{5}$
- K. $\sin x = \frac{4}{5}$

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

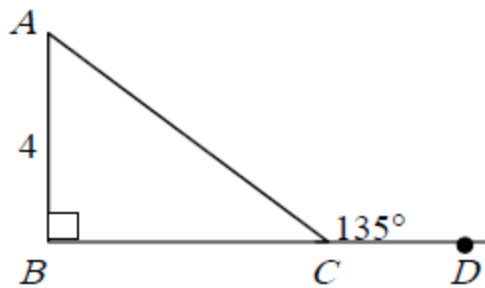
35. If $\triangle ABE$ is similar to $\triangle ACD$, what is the value of AB ?



- A. $7\frac{1}{2}$
- B. 3
- C. 2
- D. $1\frac{1}{2}$
- E. -2

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

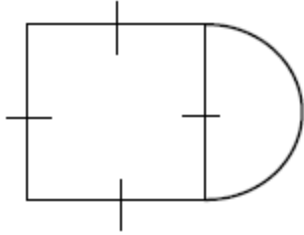
40. Given $\triangle ABC$ with $AB = 4$ and $m \angle ACD = 135^\circ$, what is the value of AC ?



- F. 4
G. $4\sqrt{2}$
H. $3\sqrt{2}$
J. 8
K. 5
41. If the diameter of a bicycle wheel is 50 centimeters, how many revolutions will the wheel make to cover a distance of 100π meters?
- A. 12
B. 20
C. 120
D. 200
E. 1200

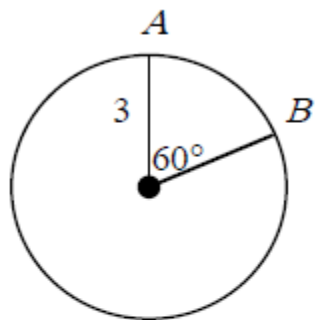
Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

49. If the area of the semicircular region is 8π , what is the perimeter of the shape?



- A. $16 + 8\pi$
- B. $24 + 4\pi$
- C. $12 + 8\pi$
- D. $24 + 4\pi^2$
- E. $16 + 4\pi^2$

51. What is the length of arc AB ?



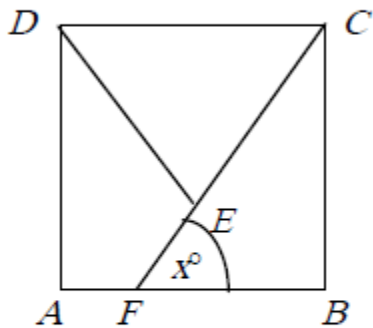
- A. π
- B. 2π
- C. 2.5π
- D. 3π
- E. 6π

Some Math Problems (Set 3) ... SAT or ACT Practice (Geometry)

52. If two sides of a triangle are 6 cm and 8 cm, which of these could be the third side?

- F. 1
- G. 2
- H. 7
- J. 14
- K. 15

59. If $ABCD$ is a square and CDE is an equilateral triangle, what is the value of x ?



- A. 30°
- B. 40°
- C. 45°
- D. 50°
- E. 60°