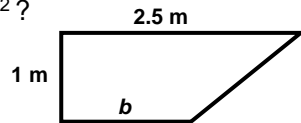
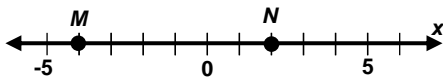


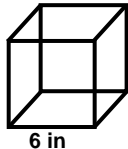
TMT Formula Finder 20 ACT Prep V3

1. How fast must you go if you plan on biking 20 miles in 3 hours?
2. A certain square has a side length of 2 in. If cut along its diagonal into two triangles, what is the area of one of the triangles?
3. Find the radius of a circle with a circumference of 6.28 ft.
4. What is the base b of the following trapezoid if it has an area of 2 m^2 ?



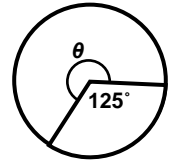
5. A right triangle's second leg is twice as long as it's first. If the hypotenuse is 125 cm long, how long is the first leg?
6. Find the midpoint of M and N :



7. What is the surface area of the following cube?

8. What is the central angle of a sector with a radius of 5 mm and an arc length of 20 mm?
9. What would be the corresponding inscribed angle for the central angle of the previous problem?
10. Describe a line perpendicular to one that goes through $(5, 1)$ and $(-13, 3)$.

11. What is the radius of a cylindrical bottle whose height is equal to its diameter, given that the volume of the bottle is $128\pi \text{ in}^3$?
12. The pizza remaining after dinner has a central angle of 135° and a radius of 8". What is the area of the remaining pizza?
13. The equation $y = 2x^2 + 19x - c$ gives the solutions $x = -10$ and $x = \frac{1}{2}$. Find c .

14. Find θ in radians:



15. What is the equation for a circle with its center on the origin and a radius of 20 un?
16. What is the area of an acute triangle with two sides 6 mm and 10 mm, respectively, and the angle between the two sides 45° ?
17. What is the total number of degrees in an octagon?
18. A tree leaning to one side is tied to a 20 ft rope, which is then nailed into the ground to keep the tree from leaning further. If the rope was tied 15 ft up from the base of the tree and nailed 5 ft away from the tree, at what angle is the tree leaning?
19. Miguel just won a free trip to a concert for him and 2 of his friends. If he has 8 friends who want to go, how many different groups of friends could he take?
20. Peter's house is 10 mi from Shanna's. Peter's house is $P(1, -3)$ and Shanna's is located at $(6, y)$. Solve for y .