GT/Honors Geometry
Chapter 10 Review - Area

Name_____
Date_____Period_____

For the following problems, find the area of the entire figure if nothing is shaded, or find the area of the shaded region if there is one. All answers should be exact unless you are asked to round.

1. Given a triangle with sides 7, 8, and 13in. long, find the length of the altitude upon the longest side.

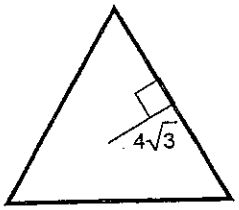
A=_____

2. A=_____ The area of a circle is 24π cm^2. Find the circumference of this circle.

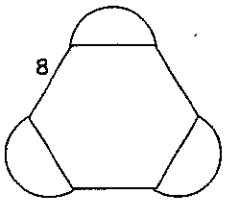
3. Two similar triangles have base lengths 6 in. and 18 in.. The area of the small triangle is 33 in^2. Find the area of the large triangle.

A=_____

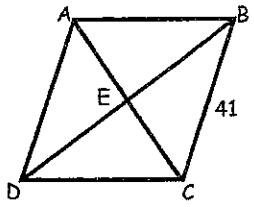
4. A=_____ Equilateral Triangle



5. A=_____; p = _____
Regular hexagon with semicircles attached

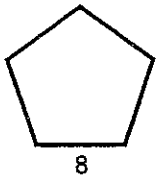


6. A=_____ ABCD is a rhombus with AC=18

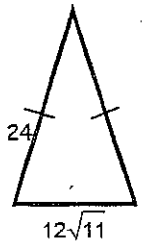


7. A=_____ Find the area of a regular nonagon with sides of length 12 cm. Round to the nearest tenth.

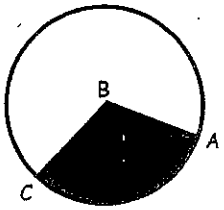
8. A=_____
Regular Polygon, round to the nearest tenth.



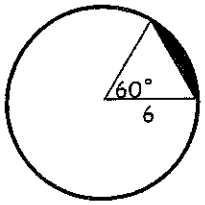
9. A=_____



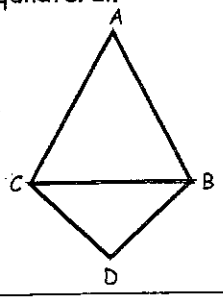
10. Given: m∠ABC=100°, CB = 15; A=_____; arc length = _____; probability of landing in the shaded area (exact) = _____



11. A=_____ P(of shaded area) = _____
probability of landing in the shaded area (nearest hundredth) = _____

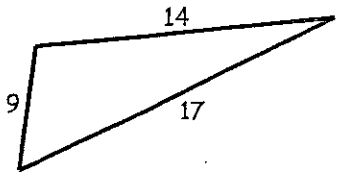


12. A=_____ ΔABC is equilateral. BD=DC=10. $m\angle DCB = 30°$.



13. Find the area of an isosceles trapezoid that has bases 8 cm. and 18 cm. and that has legs that are 13 cm. long.

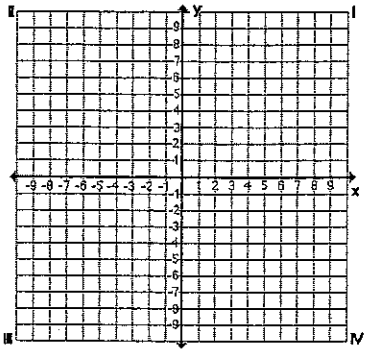
14. A=_____



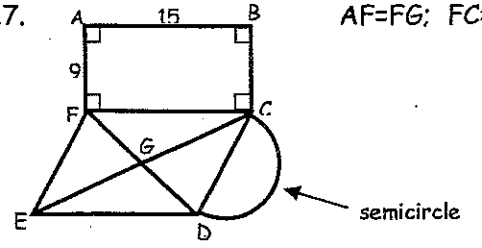
15. Find the area of quadrilateral ABCD if $m\angle B = 90°$, AB = 6, BC = 8, CD = 17 and AD = 13. (exact answer)

A=_____

16. Find the area of the quadrilateral ABCD with coordinates A(-1,5), B(6,4), C(2,-2), D(-5,2).



A=_____

17. 

AF=FG; FC=ED=FE=CD.

A=_____
P = _____

18. A parking lot is built around a rectangular building measuring 250 ft. by 150 ft. The parking lot is designed to have more parking on one of the long sides of the building. The parking lot is 30 ft. wide on three sides and 100 ft wide on one long side. Find the area of the parking lot.

A=_____

Answers: (1) $\frac{28\sqrt{3}}{13}$ u²; (2) $4\sqrt{6}\,\pi$ cm; (3) 297 in²; (4) $144\sqrt{3}$ u²; (5) $(96\sqrt{3}+24\pi)$u²; $(24+12\pi)$u; (6) 720 u²; (7) 890.2 cm²; (8) 110.1 u²; (9) $36\sqrt{55}$ u²; (10) $\frac{125}{2}\pi$u²; $\frac{25}{3}\pi$u; 5/18 (11) $(6\pi-9\sqrt{3})$u²; $(6+2\pi)$u; .03; (12) $100\sqrt{3}$ u²; (13) 156 cm²; (14) $6\sqrt{110}$ u²; (15) $2\sqrt{6}+10\sqrt{42}$ u²; (16) 41.5 u²; (17) $(351+28.125\pi)$u², $(63+7.5\pi)$u; (18) 49300 ft² (Review quizzes)