PreAP PreCalculus Unit 6 Law of Sines and Cosines

6.5 Area of Oblique Triangles Name Key

Find the area of the following oblique triangles to the nearest tenth. You must draw a diagram and show all work.

1. $m\angle A = 42.5°$, $b = 13.6$, $c = 10.1$

46.4

2. $a = 31$, $b = 23$, $c = 14$

149.8

3. $m\angle B = 124.5°$, $a = 30.4$, $c = 28.4$

355.8

4. $a = 22$, $b = 25$, $c = 30$

270

5. $m\angle A = 56.8°$, $b = 32.67$, $c = 52.89$

722.9

6. $a = 12$, $b = 12$, $c = 12$

62.4

7. $m\angle A = 24°$, $m\angle B = 56°$, $c = 78.4$

1052.3

8. $a = 10$, $b = 24$, $c = 25$

119.3

9. A painter is going to apply a special coating to a triangular metal plate. Two sides measure 16.1 m and 15.2 m. She knows that the angle between these two sides is 125°. What is the area of the surface of the plate?

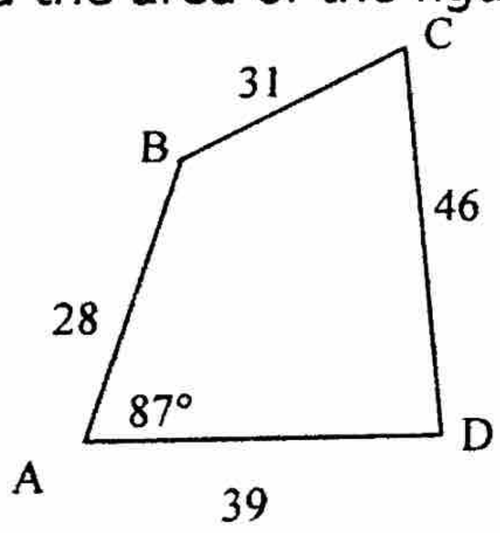
$100.2 m^2$

10. A real estate agent wants to find the area of a triangular lot. A surveyor takes measurements and finds that two sides are 52.1 m and 21.3 m, and the angle between them is 42.2°. What is the area of the lot?

$372.7 m^2$

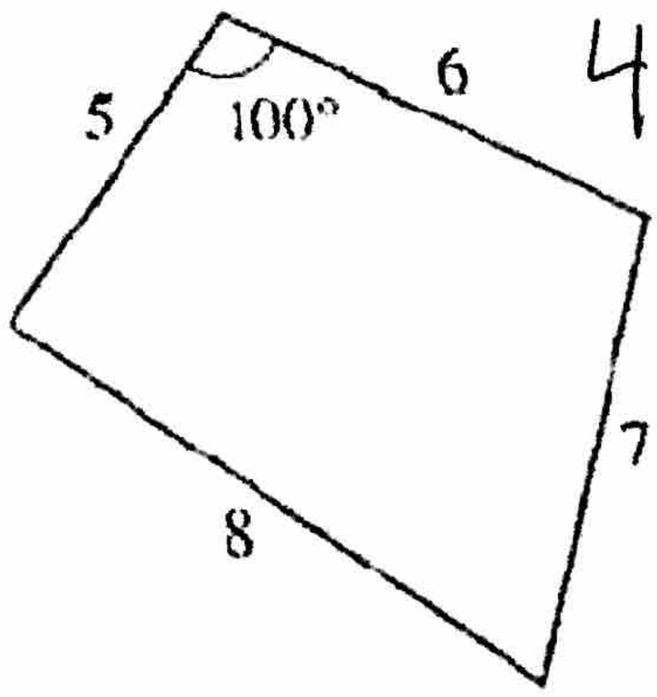
Find the area of the figures to the nearest tenth of a square unit.

11.



1223

33.



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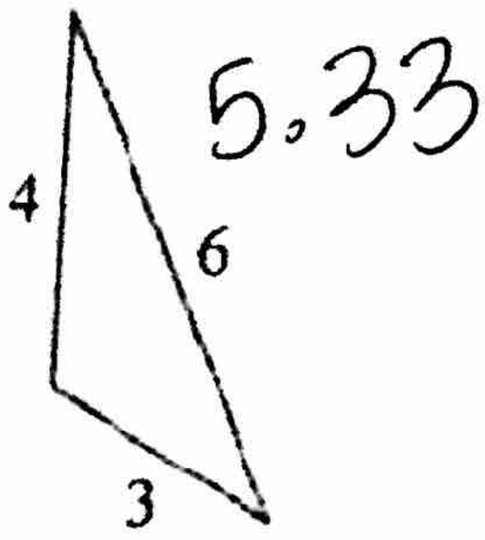
31.



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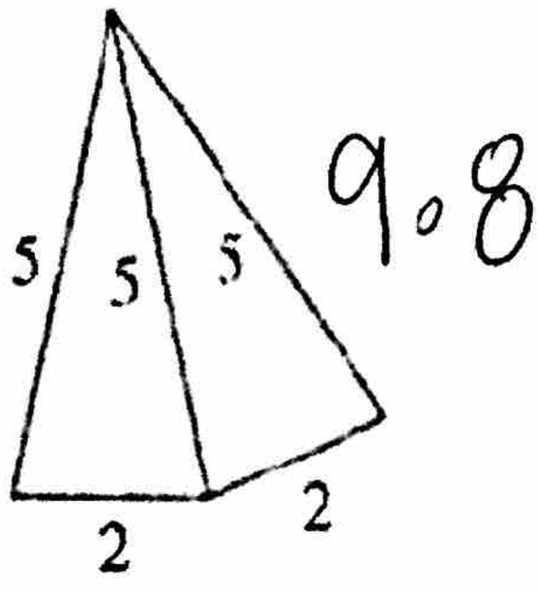
32.



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