

Algebra 3 Review Worksheet Assignment # 20

(1) Solve each of the following triangles please. Express all sides and angles correct to two decimal places. Find the area of each triangle.

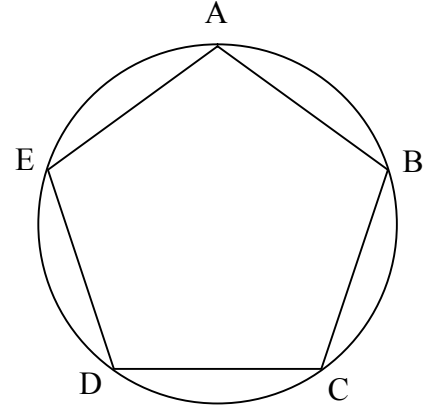
(a) $a = 7.8$, $b = 6.3$, $\gamma = 90^\circ$

(c) $a = 14$, $b = 19$, $\gamma = 43^\circ$

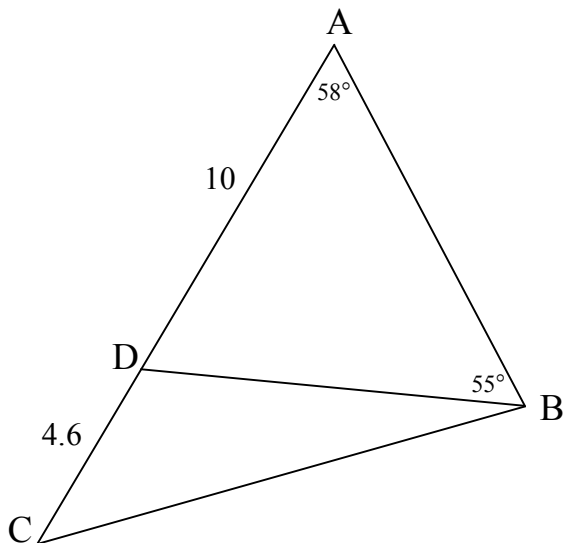
(b) $a = 5.3$, $b = 7.2$, $c = 10.4$

(d) $\alpha = 62^\circ$, $\beta = 23^\circ$, $c = 8.5$

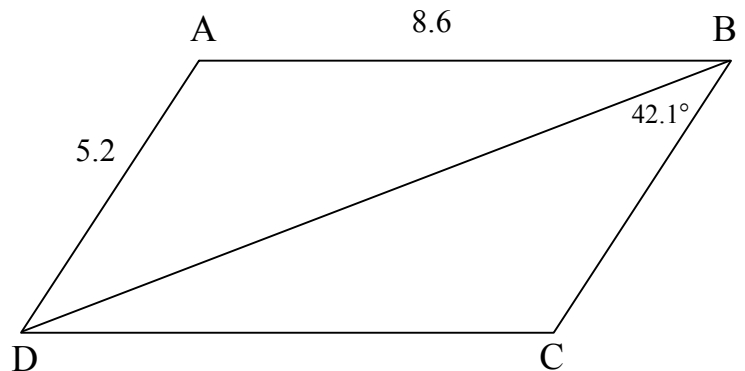
(2) Given the figure to the right, ABCDE is a regular pentagon inscribed in a circle whose radius is 10. Find the perimeter and area of the pentagon please



(3) Given the figure below with sides and angles as indicated, find AB , BD , BC , $m\angle CBD$, and $m\angle C$.



(4) Given the figure below, $\square ABCD$ is a parallelogram with sides and angle as marked. Find BD , AC and $m\angle A$.



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Answers

(1) (a) $c = 10.03$, $\alpha = 51.07^\circ$, $\beta = 38.93^\circ$, area = 24.57

(b) $\alpha = 28.26^\circ$, $\beta = 40.03^\circ$, $\gamma = 111.71^\circ$, area = 17.73

(c) $\alpha = 47.45^\circ$, $\beta = 89.55^\circ$, $c = 12.96$, area = 90.71

(d) $\gamma = 95^\circ$, $a = 7.53$, $b = 3.33$, area = 12.50

(2) perimeter = 58.78 , area = 237.76

(3) $AB = 11.24$, $BD = 10.35$, $BC = 12.86$, $m\angle CBD = 19.22^\circ$, $m\angle C = 47.80^\circ$

(4) $BD = 11.72$, $AC = 8.04$, $m\angle A = 113.99^\circ$