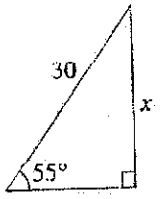
Exercise 10.5

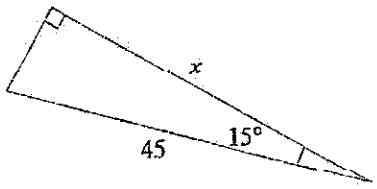
answers on p. 438

1. In the given right-angled triangles, find the values of x. Give your answers correct to 2 significant figures.

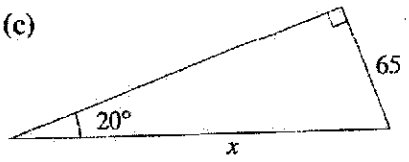
(a)



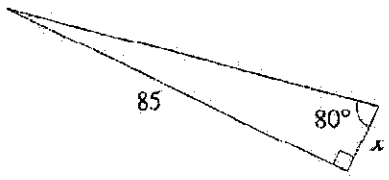
(b)



(c)

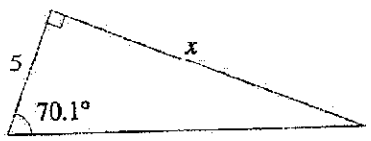


(d)



2. In the right-angled triangles, find the values of x. Give your answers correct to 4 significant figures.

(a)



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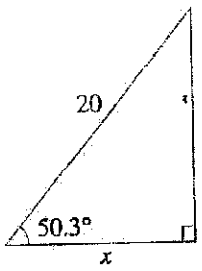
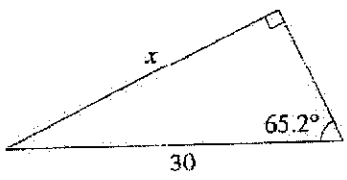
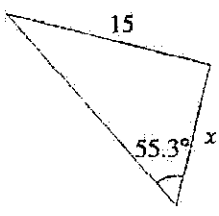


(c)

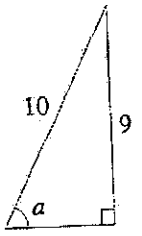


(d)

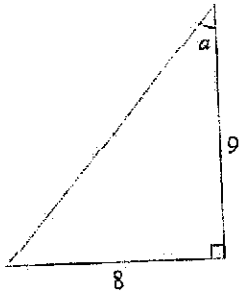


3. Find $\hat{a}$. Give each answer correct to the nearest degree.

(a)



(b)



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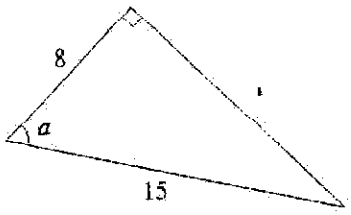

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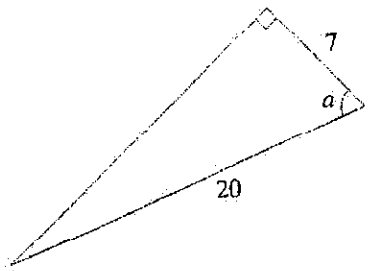
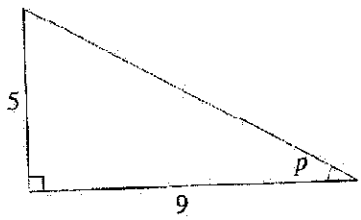
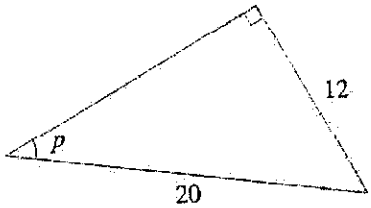


4. Find $\hat{p}$. Give each answer in degrees, correct to 1 decimal place.

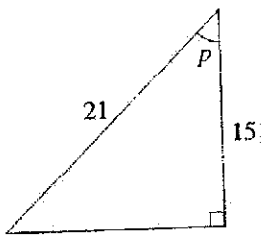
(a)



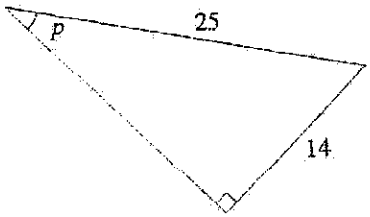
(b)



(c)



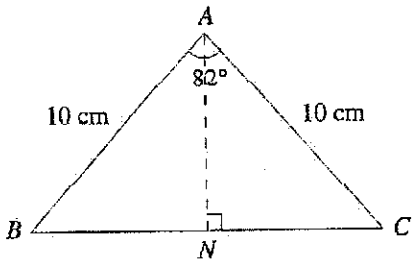
(d)



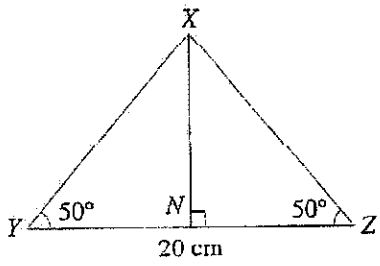
5. A diagonal of a rectangle is 10 cm long and makes an angle of 60° with one of the sides. Find the lengths of the sides of the rectangle. Give each answer correct to the nearest centimetre.

6. A diagonal of a rectangle makes an angle of 39° with its longer side. Find the width of the rectangle if its length is 50 cm. Give your answer correct to the nearest centimetre.

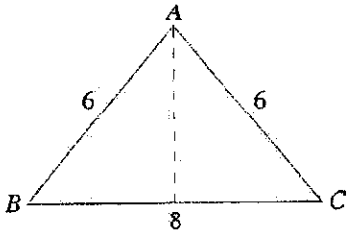
7. Triangle ABC has $AB = AC = 10$ cm, and $B\hat{A}C = 82°$. Find BC. Give your answer correct to the nearest centimetre. (*Hint:* AN is the axis of symmetry.)



8. In triangle XYZ, $\hat{Y} = \hat{Z} = 50°$, XN is perpendicular to YZ and $YZ = 20$ cm. Find XY and XN. Give each answer correct to the nearest centimetre.

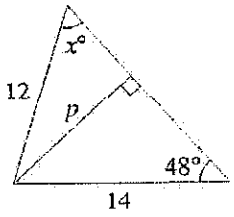


9. The sides of the triangle are 6, 6 and 8 units long. Find the angles of the triangle. Give each answer correct to the nearest degree.



10. Find the angles and sides indicated by the letters in the following diagrams. Give each answer correct to the nearest whole number or degree.

(a)



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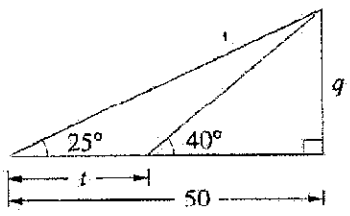
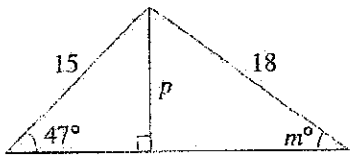


(c)



(d)