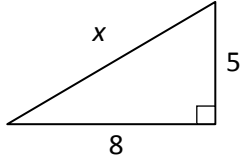


National 4 Mathematics: Homework 9

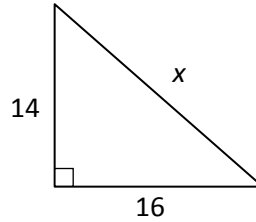
§ 1 Pythagoras

1 Calculate the length of the side marked x in each triangle below

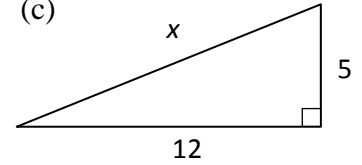
(a)



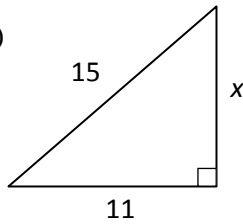
(b)



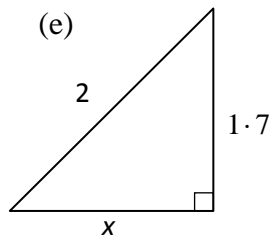
(c)



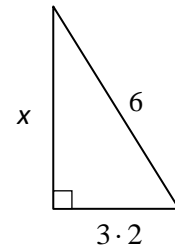
(d)



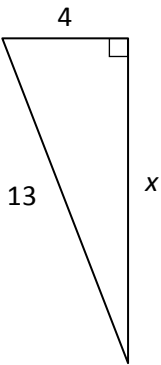
(e)



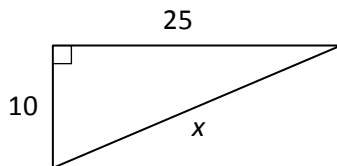
(f)



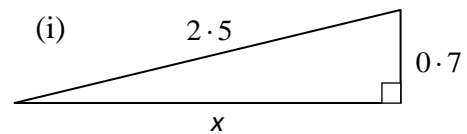
(g)



(h)

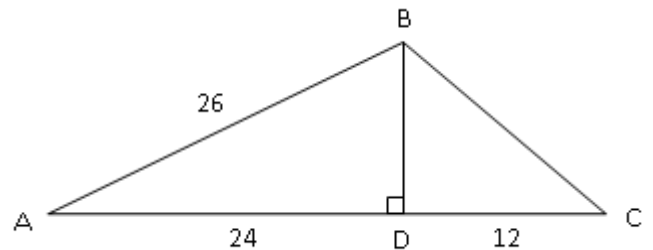


(i)

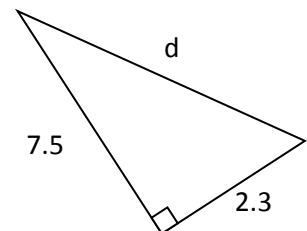
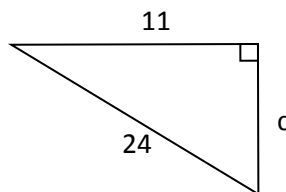
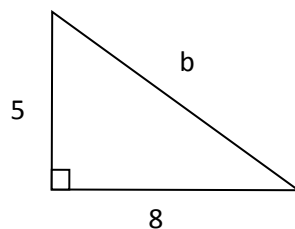
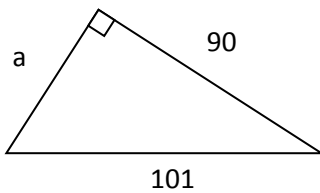


2 Consider the framework opposite.

- (a) Calculate the length of BD .
- (b) Hence calculate the length of BC .
- (c) Calculate the area of triangle ABC .



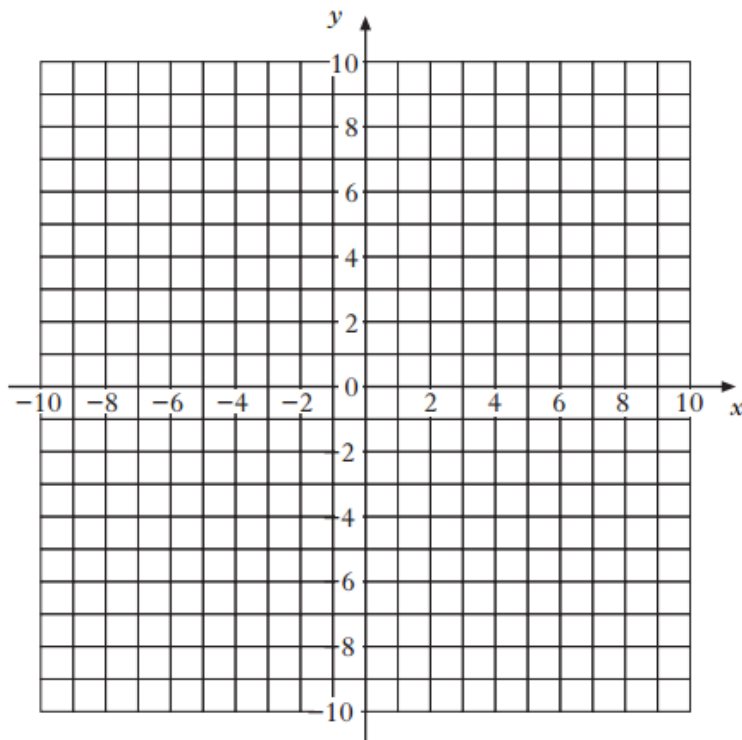
3 Calculate a, b, c and d correct to 1 decimal place



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§ 2 Straight lines

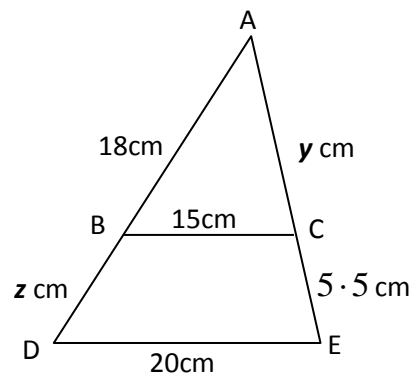
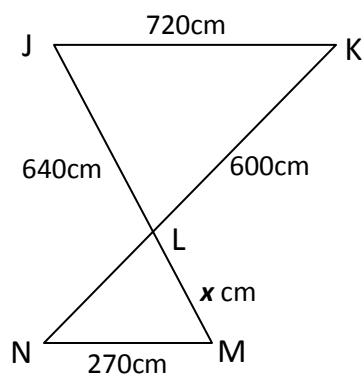
- 1 (a) On the grid below, plot the points P $(-7, -3)$ and Q $(5, 6)$.



- (b) Find the gradient of line PQ.

§ 3 Mixed

- 1 Calculate the value of x , y and z in the diagrams below.



- 2 Tony is paid a basic monthly salary of £450 plus commission of 12% of his total monthly sales. Calculate his total earnings in a month where his sales total £9000.