Use the following image for problems 7-12. Assume that DE is parallel to BC.

1. Using the triangle proportionality theorem, find the value of x, if AD is 6, AE is 3x, DB is 12, and EC is 16.



1. Using the triangle proportionality theorem, find the value of x, if AB is 18, AE is x-5, AD is 6, and EC is 20.



1. Using the triangle proportionality theorem, find the value of x, if AC is 32, AD is x+2, DB is 9, and EC is 18.

Given that DE is a midsegment in the below triangles, find the value of x with the following information.



1. DE = 12, and BC = x+4 5. BC = 84, DB = 14, and DE = 2x – 21



6. DE is x + 9 and BC is 4x+14.