

Module 3 : Similarity

Part A – Dilation

A dilation moves a point to a new point along a ray so that the distance is $r|OP| = |OP'|$. Where r is a constant.

3 **Abs** **2** **5** **=**

3|25| 75

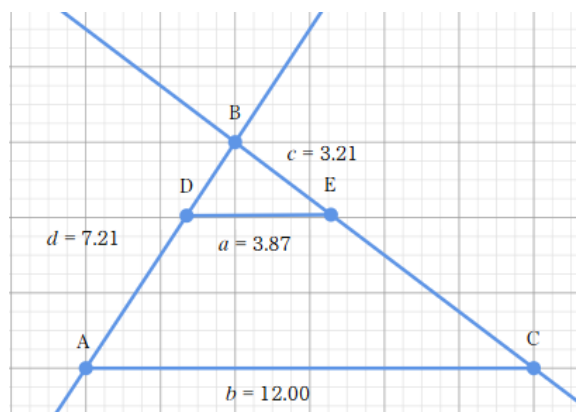
To find the transformation or the scale factor divide the post image from the pre image $r = \frac{|OP'|}{|OP|}$.

Abs **7** **5** **▶** **□** **Abs** **2** **5** **=**

|75|
|25| 3

In the picture to the right find the missing lengths in for $\triangle DBE$ and $\triangle ABC$.

Given $\overline{AB} = d = 7.21$, $\overline{BE} = c = 3.21$, $\overline{DE} = a = 3.87$ and $\overline{AC} = b = 12$



Find the scale factor $r=0.3225$.

Abs 3 . 8 7 > > > Abs 1
 2 = S+D
 0 . 3 2 2 5 X Abs 7 .
 2 1 > =
 > Abs 3 . 2 1 > 0 . 3
 2 5 = S+D

Math ▲
 3.87
 12
 0.3225
 Math ▲
 0.3225 × 7.21
 2.325225
 Math ▲
 3.21
 0.325
 9.8769230