**Quiz 4.1 REVIEW – Honors** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Dilate the image by 3 around the point (4,-2) 2. Find the scale factor and the center dilation

3. Are these triangles similar? 4. Are these triangles similar?
 If so, by what theorem? If so, by what theorem?

 *Justify with work. Justify with work.*



5. Are these triangles similar?

 If so, by what theorem?

 *Justify with work.*

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
|  |  |

8. **Given:** $AC=27; BC=21$

 $EC=14; DC=18$

 **Prove:** $∆BCA\~∆ECD$



|  |  |
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| **Statements** | **Reasons** |
|  |  |

9. **Given:** $\overbar{AE}∥\overbar{BD}$

 **Prove:** $∆ACE\~∆BCD$





10.

Suppose a new triangle is constructed with vertices *D*, *E*, and *F.* Which of the following sets of information about the new triangle are sufficient to prove that the new triangle is similar to $∆ABC$? *Choose all that apply.*

a] $EF=18.66 cm$

 $DE=24.40 cm$

b] $m∠D=23°$

 $m∠F=31°$

c] $m∠F=31°$

 $DE=12.20 cm$

d] $m∠F=126°$

 $DF=38.42 cm$

 $DE=24.40 cm$

e] $m∠F=126°$

 $DF=38.42 cm$

 $EF=18.66 cm$

11. Which of the following sets of conditions could be used to prove $∆ABC\~∆PQR$? *Select all that apply.*

c] $∠B≅∠Q$

 $∠C≅∠R$

d] $\frac{AB}{PQ}=\frac{BC}{QR}=\frac{AC}{PR}$

e] $\frac{AB}{PQ}=\frac{BC}{QR}$

a] $∠B≅∠Q$

 $\frac{BC}{QR}=\frac{AC}{PR}$

b] $∠A≅∠P$

 $\frac{AC}{PR}=\frac{AB}{PQ}$