*‘Examining angles’ is also needed. These unjumbles are for the gold questions involving congruence.*

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| **Question 4a** |
| and ∠ADC = ∠ADB = 90°. |
| Therefore triangles ADC and ADB are congruent (RHS). |
| AD is a shared side, |
| Also, AC = AB, |
| and both are a hypotenuse. |
| **Question 4b** |
| Therefore AB = BC. |
| Therefore BD = CD. |
| Also, triangles ADC and ADB are congruent. |
| Triangle ABC is equilateral. |
| So BD = $\frac{1}{2}$ AB.  |
| **Question 5** |
| Since XZ = YZ, |
| it must be true that YM = XN. |
| it must be true that XM = YN. |
| XY is a shared side, |
| and M and N are midpoints of XZ and YZ, |
| Also, since triangle XYZ is isosceles, |
| so triangles XMY and YNX are congruent (SSS). |

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| **Question 7a** |
| ABCD is a parallelogram, |
| Since E and F are midpoints of AB and CD, |
| Therefore triangles AED and CFB are congruent (SAS). |
| and ∠DAE = ∠BCF. |
| so AD = BC, |
| it is also true that AE = CF. |
| **Question 7b** |
| Therefore DE = FB. |
| Since triangles AED and CFB are congruent,  |
| the third sides must also be equal. |
| **Question 8** |
| Since ABCD is a parallelogram, |
| and ∠ABE = ∠CDE. |
| Therefore triangle ABE is congruent to triangle CDE (ASA). |
| Alternate angles are equal, |
| AB = CD. |
| so ∠BAE = ∠DCE |