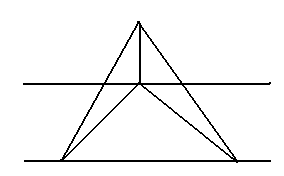
1. Sketch the point P(-2, -6) and the angle in standard position which it defines. Determine the six trigonometric ratios for this angle. What is the value of the related acute angle β and the primary angle θ? **K [ 8 ]**
2. Given , where , determine all possible angles for . **K [ 7 ]**
3. Draw the two special triangles (labeled with all angles and lengths of sides). **C [ 10 ]\**
4. **Find**
5. sin(585o) b) cos(120) c) tan(210)
6. **Find exactly the value of**
7. –
8. Given , where , determine all possible angles for . **K [ 7 ]**
9. Given , where , determine two possible valules of to the nearest degree. Sketch both angles in standard position. **I [ 4 ]**
10. Prove each identity.
    1.  [3K]
    2.  [3K]
11. Solve , if Round the side length to the nearest tenth of a centimetre and the angle to the nearest degree, if necessary. **K [ 8 ]**
12. A river running due east has straight parallel banks. A vertical post stands with its base, P, on the north side of the river. On the south bank are two surveyors, A who is to the east and B who is to the west of the post. The angle APB = 150 degrees. The angles of elevation from A and B to the top Q, of the post are 45 degrees and 30 degrees. The length of BQ is 17.32 m and the length of PA is 20m. Find the height of the post, and how far apart the surveyors are (the length of BA). Round angles to the nearest degree and lengths to 1 decimal place.

