

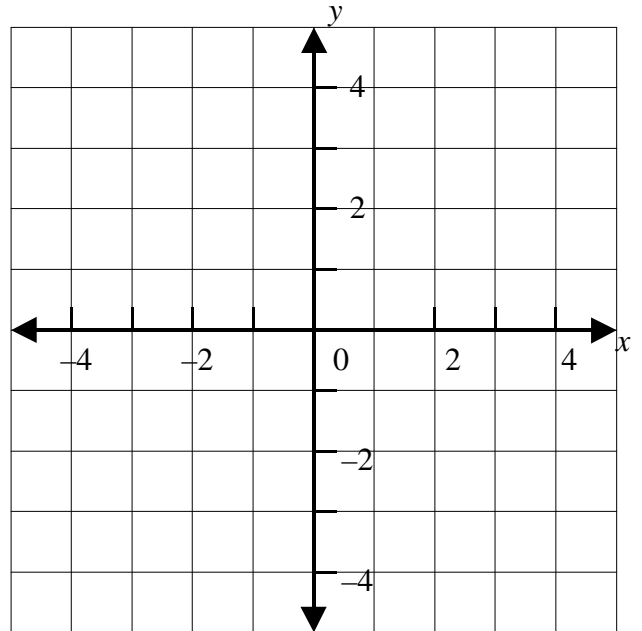
PREPARATORY PRELIMINARY MATHEMATICS

WORKSHEET #2

COURSE/LEVEL

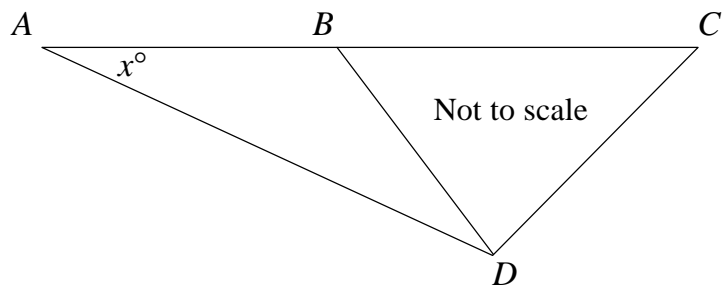
NSW Secondary High School Year 11 Preliminary Mathematics.

1. Mark the region corresponding to the inequality, $2x - y < 1$, on the grid.
2. Find the gradient of the line which passes through the points $(0, -3)$ and $(-1, 1)$ on the number plane.
3. Give an expression for x in terms of k , if $(x - k)^2 = 1$.



4. ACD is a triangle and point B lies on side AC such that $AB = BD = BC = CD$

Find angle BAD (x°):



5. Solve for x and y where: $4x - y = 1$ and $3y - 6x = -1$.

6. The diagram shows a rectangle 8 cm long and 6 cm wide. It contains 12 shaded circles packed closely together in rows. Each circle has a radius of 1 cm.

What fraction of the area of the rectangle **lies outside the shaded circles**? Give your answer in exact form.

