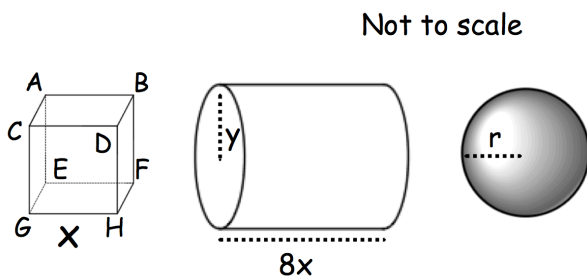




Solve

$$\frac{3}{x+1} = \frac{5-2x}{x-1}$$

Cube ABCDEFGH has side length x . A cylinder has radius y and length $8x$. The radius of the cylinder, y , is equal to the diagonal, AH , of the cube. The volume of the cylinder is equal to the volume of a sphere.



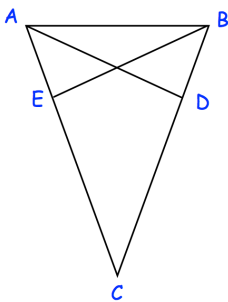
Express the radius of the sphere, r , in term of x .

Work out

$$81^{-\frac{3}{4}}$$

Simplify

$$(16x^8)^{\frac{3}{4}}$$



ABC is an isosceles triangle with $AC = BC$. D and E are points on BC and AC such that $CE = CD$. Prove triangles ACD and BCE are congruent.