**ch. ¾ Non calc**

**1.** Solve the equation 27*x*–1 = .

**2.** Solve 

**3.** Let *a* = log *x*, *b* = log *y*, and *c* = log *z*.

 Write log  in terms of *a*, *b* and *c*.

**4.** (a) Given that log3*x* + log3(*x* – 5) = log3*A*, express *A* in terms of *x*.

1. Hence or otherwise, solve the equation log3*x* + log3(*x* – 5) = 14.

**5.** The diagram shows three graphs.



 *A* is part of the graph of *y = x.*

 *B* is part of the graph of *y* = 3*x*.

 *C* is the reflection of graph *B* in line *A.*

 Write down

(a) the equation of *C* in the form *y =f*(*x*);

(b) the coordinates of the point where *C* cuts the *x*-axis.