



Volume of (3)  
 $\frac{1}{3} \times \pi \times 3^2 \times 9 = 27\pi$

Volume of (1)  
 $\frac{1}{3} \times \pi \times 1^2 \times 3 = \pi$

Find the volume of liquid in the container

Volume of (2) =  $26\pi$   
 $= 81.68 \text{ cm}^3$

The table shows the waiting times of patients at a doctors surgery.

Time, t (minutes)	Frequency
$0 < t \leq 10$	24
$10 < t \leq 20$	31
* $20 < t \leq 30$	50
$30 < t \leq 40$	35
$40 < t \leq 50$	60

200

$20 + \frac{45}{50} \times 10 = 29$

Find an estimate of the median wait time.

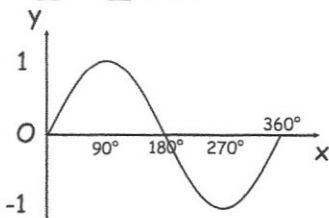
100<sup>th</sup> value:

29 minutes

Two patients are picked at random. Find the probability that both patients waited more than 30 minutes.

$\frac{95}{200} \times \frac{94}{199} = \frac{893}{3980}$

Here is the graph of  $y = \sin(x)$  for  $0 \leq x \leq 360$



One solution of  $\sin x = -0.5$  is  $x = 330^\circ$ . Find another solution of  $\sin x = -0.5$

$210^\circ$

Solve the equations

$2x + y = 11$

$2x^2 - y^2 = 23$

$y = 11 - 2x$

$2x^2 - (11 - 2x)^2 = 23$

$-2x^2 + 44x - 121 = 23$

$0 = 2x^2 - 44x + 144 \div 2$

$0 = x^2 - 22x + 72$

$0 = (x - 4)(x - 18)$

$x = 4 \quad x = 18$

$y = 3 \quad y = -25$

$2x^2 - [121 - 44x + 4x^2] = 23$