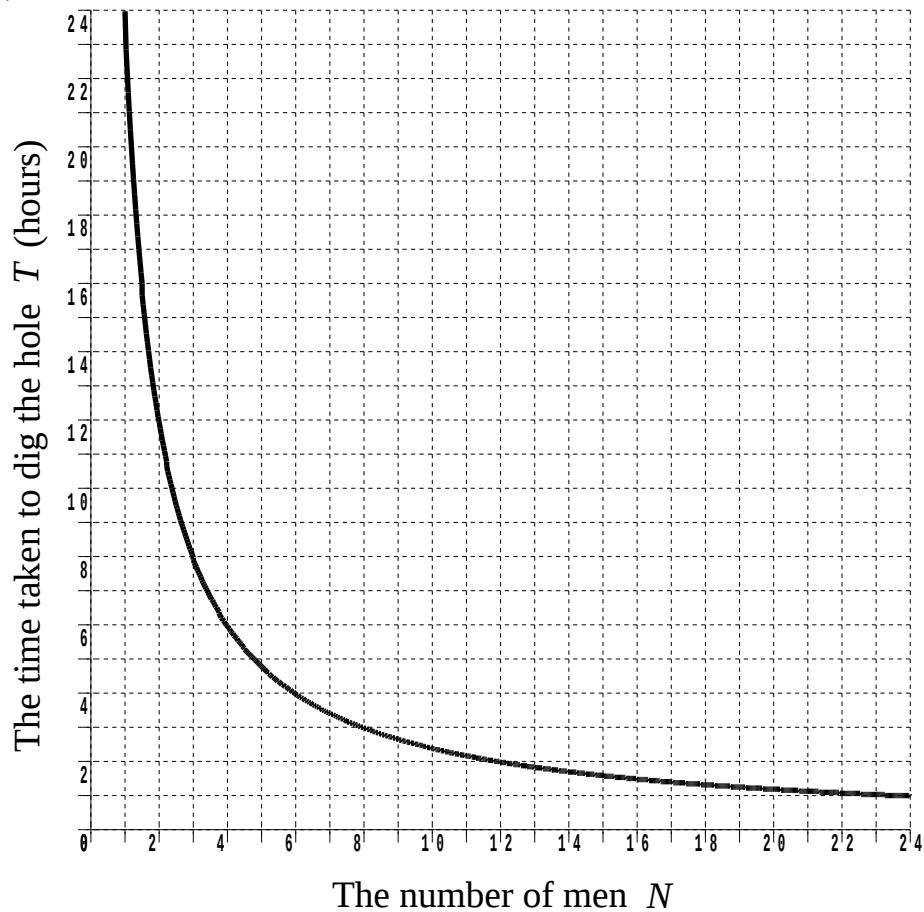




Answer 5

(i)	(ii)	(iii)
$M \propto \frac{1}{S^2}$	100	$M = \frac{100}{S^2}$
(iv)	(a)	25
	(b)	1
	(c)	1000

Answer 6

$$P = \frac{kQ}{R}$$

(i)	20
(ii)	
	$P = \frac{20Q}{R}$
(iii)	(a) 4
	(b) 0.7

Answer 7

$$M = \frac{k\sqrt{F}}{I}$$

(i)	10
(ii)	
	$M = \frac{10\sqrt{F}}{I}$
(iii)	(a) 55
	(b) 0.5

Answer 8

$$Q = kMH^2$$

(i)	
	$k = \frac{5}{8} \text{ or } 0.625$
(ii)	
	$Q = \frac{5MH^2}{8} \text{ or } Q = 0.625MH^2$
(iii)	(a) 4000
	(b) 562.5