

Maths

# Substitute a positive term into a formula

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# Substitute a positive term into a formula

1. When  $a = 9$ ,  $b = 3$  and  $c = 0.5$  find the value for the expressions.

- a)  $5a$
- b)  $5a + 10c$
- c)  $2(a + c)$
- d)  $c(5 + a)$
- e)  $9(b - c)$
- f)  $ab - c$
- g)  $a^2 + b$
- h)  $3(a^2 + b)$

2. Use the formula  $t = 10r - 5$  to complete the questions.

- a) Find the value of  $t$  when  $r = 16$
- b) Find the value of  $r$  when  $t = 20$

3. Use the formula  $X = 0.5(a + b)h$  to complete the questions.

- a) Find the value of  $X$  when  $a = 6$ ,  $b = 8$  and  $h = 5$
- b) Find the value of  $h$  when  $X = 30$ ,  $a = 10$  and  $b = 20$



# Answers



# Substitute a positive term into a formula

1. When  $a = 9$ ,  $b = 3$  and  $c = 0.5$  find the value for the expressions.

- a)  $5a$                       **45**
- b)  $5a + 10c$                 **50**
- c)  $2(a + c)$                 **19**
- d)  $c(5 + a)$                 **7**
- e)  $9(b - c)$                 **22.5**
- f)  $ab - c$                     **26.5**
- g)  $a^2 + b$                     **84**
- h)  $3(a^2 + b)$                 **252**

2. Use the formula  $t = 10r - 5$  to complete the questions.

- a) Find the value of  $t$  when  $r = 16$   
 **$t = 155$**
- b) Find the value of  $r$  when  $t = 20$   
 **$r = 2.5$**

3. Use the formula  $X = 0.5(a + b)h$  to complete the questions.

- a) Find the value of  $X$  when  $a = 6$ ,  
 $b = 8$  and  $h = 5$        **$X = 35$**
- b) Find the value of  $h$  when  $X = 30$ ,  
 $a = 10$  and  $b = 20$      **$h = 2$**

