

# Substitute into single expressions

1 Substitute  $h = 7$  into each of these expressions.  
Use the bar models to help you.

a)  $3h =$  

$h$	$h$	$h$
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b)  $h + 3 =$  

$h$	3
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c)  $5h =$  

$h$	$h$	$h$	$h$	$h$
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d)  $5 + h =$  

5	$h$
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e)  $h + 27 =$  

$h$	27
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f)  $\frac{h}{2} =$  

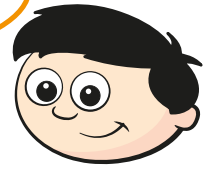
$h$
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2 Dexter is substituting  $y = 8$  into these expressions.

a) 

$y + 3$	$3 + y$
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You will get the same answer for both.



Do you agree with Dexter? \_\_\_\_\_  
Explain your answer.

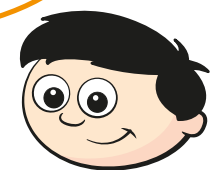
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b) 

$\frac{y}{4}$	$\frac{4}{y}$
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You will get the same answer for both of these as well.



Do you agree with Dexter? \_\_\_\_\_  
Explain your answer.

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3 Rosie substitutes  $g = 12$  into the expression  $7 - g$ .  
Here is her working out.

$g = 12$
$7 - 12 = 5$

Explain why Rosie's answer is incorrect.

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4 Substitute  $p = 16$  into each of these expressions.

a)  $p + 7 =$

$p + 9.5 =$

$6 + p =$

$p + p =$

b)  $p - 3 =$

$p - 20 =$

$20 - p =$

$p - p =$

c)  $4p =$

$5p =$

$3.9p =$

$p^2 =$

d)  $\frac{p}{2} =$

$\frac{p}{3.2} =$

$\frac{40}{p} =$

$\sqrt{p} =$

5 a) Match the expressions that will be equal when  $y = 5$

$5y$

$\frac{y}{5}$

$\frac{5}{y}$

$y + 5$

$5 + y$

$y - 5$

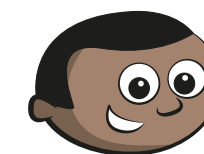
$5 - y$

$y^2$

b) Which cards will have the greatest value when  $y = 1$ ?

\_\_\_\_\_

c)



$y - 5$  and  $5 - y$  will always give the same answer for every value of  $y$ .

Give an example to show that Mo is wrong.

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\_\_\_\_\_

d) Which of the expressions will always be equal, whatever the value of  $y$ ?

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