

# Understand the meaning of like and unlike terms

1 Match the like terms.

$3h$	$7k$
$2k$	$3b^2$
$11$	$5h$
$b^2$	$15$
$3ab$	$5ba$

2 Tick to show whether the terms are like or unlike.

	Like terms	Unlike terms
a) $3y$ and $5y$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) $5c$ and $5d$	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) $3e$ and $3e^2$	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) $h$ and $246h$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) $246$ and $246h$	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) $a^2$ and $b^2$	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) $5a^2$ and $a^2$	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3 a) Circle the terms that are like  $7xy$ .

$3x$

$4y$

$2xy$

$5yx$

b) Circle the terms that are like  $h^2$ .

$5h$

$3h^2$

$h^3$

$-5h^2$

c) Circle the terms that are like  $2p$ .

$5p$

$\frac{1}{2}p$

$11$

$0.957p$

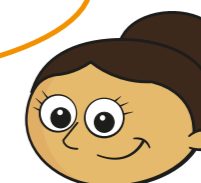
4 Dora has these expression cards.

$2x$

$2x^2$

$2x^3$

These are like terms because they all contain just the letter  $x$ .



What mistake has Dora made?

She hasn't looked at the powers.

5 Write five different like terms for each term.

a)  $4c$

e.g.  $2c, -9c, 107c, \frac{1}{2}c, 0.75c$

b)  $-g$

e.g.  $16g, 3g, -100g, \frac{9}{2}, 0.4g$

c)  $\frac{2}{5}a^2$

e.g.  $a^2, -a^2, 7a^2, 0.97a^2, 1000a^2$

Compare answers with a partner.

How did you find like terms?

What was important? What was not important?

6 Explain why these terms are like and unlike.

Like terms
$14h$ and $15h$
$6$ and $-5$
$18p$ and $-8p$
$c^2$ and $20c^2$
$7ab$ and $ba$

Unlike terms
$14h$ and $15g$
$6x$ and $-5$
$-18p$ and $-8$
$c$ and $20c^2$
$7ab$ and $7a$

Same variable and

same powers.

Either not the same

variable or not the same

powers.

7 Sort the expressions into sets of like terms.

Find as many sets as possible.

5	$5y$	$-5$	$-5y$	$-5y^2$
$y^2$	15	$15y$	$-15$	$1.5p$
$y$	$5y^2$	$p$	$-5p$	$5py$

$y, 5y, 15y, -5y$     $5, 15, -5, -15$   
 $y^2, 5y^2, -5y^2$     $p, -5p, 1.5p$

8 a) Are  $20r^2p$  and  $\frac{1}{20}pr^2$  like terms? yes

Explain how you know.

same variables ( $p$  and  $r$ )

same powers ( $p$  and  $r^2$ )

b) Are  $6, 11.4, \frac{3}{5}$  and  $\pi$  like terms? yes

Explain your answer.

They are all numbers (no variable)

