

Understand the meaning of like and unlike terms

1 Match the like terms.

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

(Hand-drawn blue lines connect 3h to 5ba, 2k to 3ab, 11 to 15, b^2 to 3b^2, and 3ab to 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 $7xy$.

$3x$ $4y$ $2xy$ $5yx$

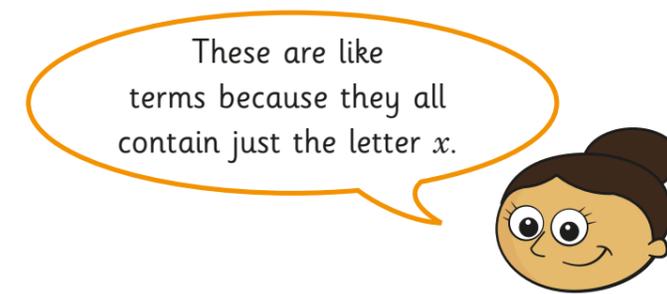
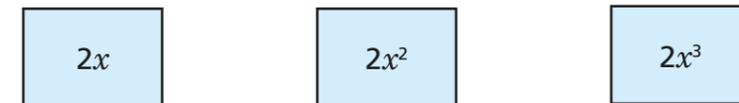
b) Circle the terms that are like h^2 .

$5h$ $3h^2$ 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.



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 π like terms? yes

Explain your answer.

They are all numbers (no variable)

