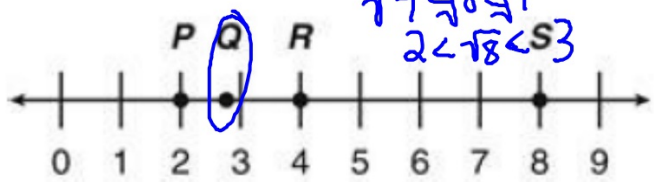
Warm-up

) Which point most closely corresponds to $\sqrt{8}$ on the number line below?

$\sqrt{4} < \sqrt{8} < \sqrt{9}$

$2 < \sqrt{8} < 3$



A. *P*
B. *Q*
C. *R*
D. *S*

What is the value of $\sqrt{25} + \sqrt{16}$?

$5 + 4$

9

A. $\sqrt{41}$
B. 8
C. 9
D. 41

3) Which of the following numbers is ration

A. 0.31311 . . . ends or repeats
B. $\sqrt{5}$ ← not a perfect square
C. $\sqrt{16} = 4$
D. $\sqrt{27}$ ← not a perfect square

not end not repeat

4) Which set contains an irrational number?

A. $\{0, 1, 2, 3, -1\}$
B. $\{0.17, \sqrt{3}, 2.\overline{5}, \sqrt{4}\}$
C. $\left\{\frac{1}{2}, \frac{3}{5}, \frac{15}{3}, -\frac{7}{2}, 1\frac{5}{6}\right\}$
D. $\{\sqrt{100}, 0.125125125, -1.0888\}$

Daily HW Check :

Box 5: Order and Evaluate #6
Box 6: Order and Evaluate #24

Go to the weebly and check your answers until everyone finishes.

1W Answers Order of Operations and Evaluating Expres

1) $90+9\cdot2$
$90+18$
$\boxed{108}$

2) $30-15\div5$
$30-3$
$\boxed{27}$

3) $4\cdot3+\frac{35}{5}$
$12+7$
$\boxed{19}$

4) $64\div8\cdot2^2$
$64\div8\cdot4$
$8\cdot4$
$\boxed{32}$

5) $7+2(15-6)$
$7+2(9)$
$7+18$
$\boxed{25}$

6) $\frac{16\cdot3-4}{16-3\cdot4}$
$\frac{48-4}{16-12}$
$\frac{44}{4}$
$\boxed{11}$

7) $25-(2+2)\cdot3$
$25-4\cdot3$
$25-12$
$\boxed{13}$

8) $7\cdot3^2-20+1$
$7\cdot9-20+1$
$63-20+1$
$43+1$
$\boxed{44}$

17) $8+3n$
$8+3(6)$
$8+18$
$\boxed{26}$

18) $(8+3)n$

$(8+3)6$

$(11)6$

$\boxed{66}$

19) $90-4d$

$90-4(3)$

$90-12$

$\boxed{78}$

20) $7x+2y$

$7(15)+2(20)$

$105+40$

$\boxed{145}$

21) $\frac{8b+1}{7-2a}$

$\frac{8(4)+1}{7-2(2)}$

$\frac{32+1}{7-4}$

$\frac{33}{3}$

$\boxed{11}$

22) $2+5x^2$

$2+5(4)^2$

$2+5(16)$

$2+80$

$\boxed{82}$

23) $2+(5x)^2$

$2+(5\cdot4)^2$

$2+20^2$

$2+400$

$\boxed{402}$

24) $(2+5x)^2$

$(2+5\cdot4)^2$

$(2+20)^2$

$(22)^2$

$\boxed{484}$

~Integer Practice~

-8 + 5 

-3 - 7 

5 + (-16) 

12 - 13 

12 + 6 

-8 - 9 

-4 + (-4) 

-9 - (-8) 

13 - 21 

Vocabulary

Coefficient: A number multiplied by a variable or variables

Constant: a number that stands alone

Numerical expression-is a mathematical phrase with only numbers and operation symbols

Variable-is a symbol that represents one or more numbers

Algebraic expressions-a mathematical expression with one or more variables

Like Terms

Terms with the exact same variables, raised to the same power.

Examples

$4x$ and $-10x$

$15xy$ and $17xy$

$-2x^2y$ and $7x^2y$

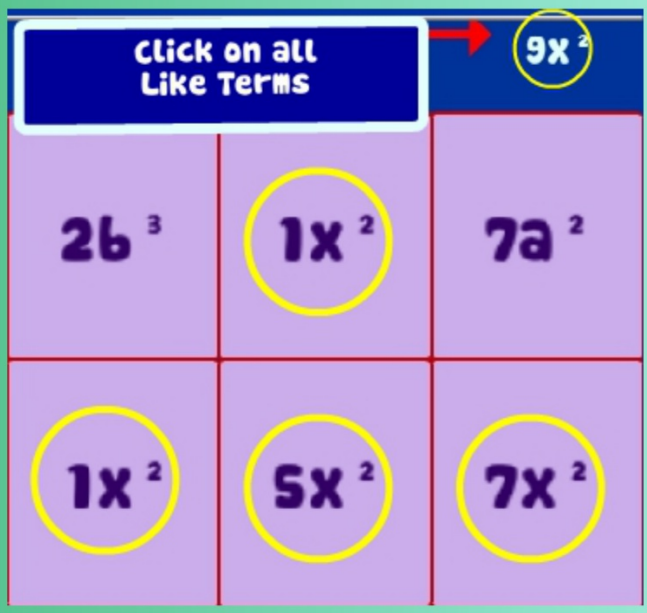
$-9xy^3$ and $13xy^3$

Determine whether the terms and LIKE or UNLIKE terms.
Drag the correct word over the terms.

$-4x$ and $-10x$ LIKE	$13xy$ and $5y$ UNLIKE	$5x^2$ and $9x$ UNLIKE
$9x^2y$ and $4x^2y$ LIKE	$3xy^2$ and $7x^2y$ UNLIKE	$17ab$ and $-21ab$ LIKE

LIKE UNLIKE

Like Terms Matching Game



Combining Like Terms - Important Note

Remember:

~ adding a negative is the same as subtracting~

~Every number should have **ONE** sign in front!~

Examples:

- 4 + (-9) = 4 - 9
- 5a + (-4) = 5a - 4

Simplifying Expressions by Combining Like Terms

You can combine like terms by **adding** their numerical coefficients.

Examples:

1. $5x + 9x - 12x$

$14x - 12x$

$2x$

2. $14x + 9 + 6x$

$14x + 6x + 9$

$20x + 9$

More Examples

3. $9a^2 - 6ab - 11a^2 + 10ab$

$9a^2 - 11a^2 - 6ab + 10ab$

$-2a^2 + 4ab$

4. $-6a + 7 - 3b - 4 + 2a + b$

$-6a + 2a - 3b + b + 7 - 4$

$-4a - 2b + 3$