

M-A1 Algebra 1 9/26 Week 3

1.) 8 less than the sum of b and 9
 switch $\boxed{(b+9) - 8}$ $\boxed{b+9-8}$

2.) 12 more than the quotient of 8 and x
 in order $\boxed{\frac{8}{x} + 12}$ $\boxed{12 + \frac{8}{x}}$ $\boxed{(8 \div x) + 12}$

3.) The difference between c and the product of 8 and x
 $\boxed{c - 8x}$ $\boxed{c - (8 * x)}$

4.) The product of 8 and the sum of 14 and y
 $\boxed{8(14+y)}$ or $\boxed{8(y+14)}$ $\boxed{8 * (14+y)}$

5.) 9 less than t increased by 3
 $\boxed{t + 3 - 9}$ $\boxed{(t + 3) - 9}$

1.) $4 + 3(15 - 2^3)$
 $4 + 3(15 - 8)$
 $4 + 3(7)^*$
 $4 + 21 = \boxed{25}$

2.) $5 + 16 \div 2 + 7 * 4$
 $5 + 8 + 7 * 4$
 $5 + 8 + 28$
 $13 + 28 = \boxed{41}$

3.) $8 + 4^2 + 12 - 2^3 \div 8$
 $8 + 16 + 12 - 8 \div 8$
 $8 + 16 + 12 - 1$
 $24 + 12 - 1$
 $36 - 1 = \boxed{35}$

P
E
MD
AS

$$4.) 72 - (5+3)^2 + 4(12-3^2) \div 6$$

$$72 - (8)^2 + 4(12-9) \div 6$$

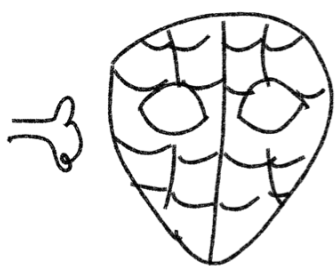
$$72 - (8)^2 + 4(3) \div 6$$

$$72 - 64 + 4(3) \div 6$$

$$72 - 64 + 12 \div 6$$

$$72 - 64 + 2$$

$$8 + 2 = \boxed{10}$$



Spider-Man



Peter Parker

$$\frac{a + 2b}{5} \quad a = 1 \quad b = 2$$

$$\frac{1 + 2(2)}{5}$$

$$\frac{1 + 4}{5} = \frac{5}{5} = \boxed{1}$$

Substitute
"Evaluate"
"Simplify"

$$X + 3y^2$$

$$\downarrow \quad \downarrow$$
$$3 + 3(4)^2$$

$$3 + 3(16)$$

$$3 + 48 = \boxed{51}$$

$$X = 3$$

$$y = 4$$

$$3(y^2)$$

$$\text{not } (3y)^2$$

$$1.) \quad 7a - 4(b+2)$$

$$a = 2 \quad b = 5$$

$$7(2) - 4(5+2)$$

$$14 - 28 = \boxed{-14}$$

$$7(2) - 4(7)$$

$$2.) \quad (a^3 + b^2) \div a$$

$$a = 3 \quad b = 2$$

$$\left((3)^3 + (2)^2 \right) \div 3$$

$$(27 + 4) \div 3$$

$$31 \div 3 =$$

$$\boxed{\frac{31}{3} = 10.\bar{3}}$$

Properties of Numbers

Real Numbers

Imaginary Number

Rational

Irrational

Rational (ratio) - numbers that can be put into a fraction

Irrational - numbers that cannot be put into a fraction

Rational Numbers

Counting numbers: 1, 2, 3, 4, ...

Whole numbers: 0, 1, 2, 3, 4, ...

counting numbers and 0

Integer: all whole numbers and their opposite

... -3, -2, -1, 0, 1, 2, 3, 4, ...

$0.749 = \frac{749}{1000}$ terminal decimal

$0.\underline{7}777\dots = 0.\bar{7}$ repeating decimal $\frac{7}{9}$

$0.\underline{283}283283\dots$ repeating decimal $\frac{283}{999}$

$0.283284285\dots$ irrational no repeat

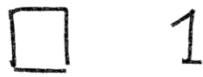
0.811812813 terminal decimal

Perfect Square (Rational)

$$1 \quad \sqrt{1} = 1$$

$$4 \quad \sqrt{4} = 2$$

$$9 \quad \sqrt{9} = 3$$



- 1 < 0
- 1 < 1
- 3 < 4
- 5 < 9
- 7 < 16
- 9 < 25
- 11 < 36
- 13 < 49
- 15 < 64
- 81
- 100

9 $\sqrt{49}$ - rational perfect square
 $\sqrt{50}$ - irrational