

Q1) •  $8 * -3 + (8 + 3 * (6 - 2)) / 4 * 2$

$$-24 + (8 + 3 * 4) / 4 * 2$$

$$-24 + 20 / 4 * 2$$

$$-24 + 5 * 2$$

$$= -24 + 10 = -14$$

•  $5 \% 6 - 19 + (54 \% 7 + 9) / 2$

$$5 \% 6 - 19 + (5 + 9) / 2$$

$$5 - 19 + 14 / 2$$

$$5 - 19 + 7 = -7$$

•  $7^2 - 17 - 3 * 25 - 15 \% 4 / \sqrt[3]{27}$

$$49 - 17 - 3 * 25 - 15 \% 4 / \sqrt[3]{27}$$

$$49 - 17 - 75 - 3 / 3$$

$$49 - 17 - 75 - 1$$

$$= -44$$

2) •  $B > T == D < Y$   
 $66 > 84 == 68 < 89$   
 F T

F

•  $D < g \ 88 \ R$   
 $68 < 103 \ 88 \ 82$   
 T T

T

•  $M \leq a$   
 $77 \leq 79$

F

24) •  $a = 11 \quad b = 14 \quad c = b \% a \quad c = 3$   
 $14 \% 11$

Does  $c \geq b$   
 $3 \geq 14$  F

Does  $c^2 == b - 5$   
 $9 == 14 - 5 = 9$  T

Q3)  $a=10$     $b=a-5$     $b=10-5$   
 $b=5$

a)  $a \leq b$

$10 \leq 5$

**F**

b)  $a > b$

$10 > 5$

**T**

c)  $a * b \leq b^2 * 2$

$50 \leq 25 * 2$

**T**

$50 \leq 50$

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Q5)    $x=5$     $y=6$     $z=8$

A)  $x == 5$    **T**

B)  $y < (x+2)$    **T**  
 $5+2$

C)  $(2+x) != y$    **T**  
 $7 != 6$

D)  $x >= 9$   
 $5 >= 9$    **F**

E)  $x <= (y * 2)$   
 $5 <= (12)$    **T**

Q6)  $x=10$   $y=28$   $a=15$   $b=20$

if  $x < y \ \&\& \ a == b$  let  $b = 0$

$10 < 28 \ \&\& \ 15 == 20$       F  
T                      F

$b = 20$

if  $x < y \ || \ a == b$  let  $b = 10$

$10 < 28 \ || \ 15 == 20$   
T                      F

$b = 10$

if  $x - 1 \ || \ b$  let  $b = 100$

$9 \ || \ 10$   
T              T

$b = 100$

Q4)  $a=2$   $b=4$   $c=6$

a)  $a == 4 \ || \ b > 2$

$2 == 4 \ || \ 4 > 2$   
F                      T

$\boxed{T}$

E)  $!(a > 2)$

$!(2 > 2)$

$!(F)$

$\boxed{T}$

b)  $b <= c \ \&\& \ a > 3$

$6 <= 6 \ \&\& \ 2 > 3$   
T                      F

$\boxed{F}$

c)  $1 != b \ \&\& \ c != 3$

$1 != 4 \ \&\& \ 6 != 3$   
T                      T

$\boxed{T}$

d)  $a >= -1 \ || \ a <= b$   $\boxed{T}$

$2 >= -1 \ || \ 2 <= 6$

T                      T

Q8)  $x=20$   $y=10$

- if  $x < 30 \text{ \&\& } y > 30$

$20 < 30 \text{ \&\& } 10 > 30$

$x=20$   $y=10$

F

- if  $x < 30 \text{ || } y < 30$

$20 < 30 \text{ || } 10 < 30$

T

T

$x = y / x$

$x = 10 / 20 = 0.5$

- if  $!(x/2 < y \text{ || } x*2 < y)$

$!(0.5/2 < 10 \text{ || } 0.5*2 < 10)$

$!(0.25 < 10 \text{ || } 1 < 10)$

T

T

F