

11.4 (d)  $ax^2 + bx + c = 0$   
 $a, b, c \geq 0$

$$x_1, x_2 = \frac{-b \pm \sqrt{b^2 - 4ac}}{2 \cdot a}$$

\* Check if  $D \geq 0$

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$$D = (b^2 - 4ac)$$

#include <math.h>

$\vdots$

$$D = b * b - 4 * a * c;$$

$$D1 = \text{sqrt}(D);$$

$$\left. \begin{aligned} x_1 &= (-b + D1) / 2 * a; \\ x_2 &= (-b - D1) / 2 * a; \end{aligned} \right\}$$

$(c == 119)$  & not like  $c = 119$

T1.5  $i = 7$   $f = 5.5$

$c \geq 10 * (i + f);$   
↓                      ↓  
119                      125  
false  $\Rightarrow \underline{\underline{0}}$

logical and &&  
          or    ||  
          negate !

T1.6 Let  $c = 'p'$   
 $(f > 4) \&\& (c <= 'w')$   
True  $\Rightarrow 1$

last prob

$(C*3 \leq i*2)$  OR  $(f > 0)$   
f T  
True  $\Rightarrow 1$

$++x$   $x++$   
 $x = x + 1$

$--x$   $x--$   
 $x = x - 1$

$\begin{cases} x = 1; \\ y = x++; \end{cases}$

$y = 1$   
 $\& x = 2$

$x = 1;$   
 $y = ++x;$   
 $y = 2;$   
 $x = 2;$

T1.8

$x += 2;$

$x /= 2;$

$x = \textcircled{x} + 2$

LHS

$x = x/2;$

$x \textcircled{+=} (y+x)/5 + 3;$

$x = \textcircled{x} + (y+x)/5 + 3;$

$x *= (y/\text{marilyn});$

$x = x * (y/\text{marilyn});$

$\text{exp1} ? \text{exp2} : \text{exp3};$

$\text{if} (\text{exp1}) \{$   
 $\quad \text{exp2};$   
 $\}$

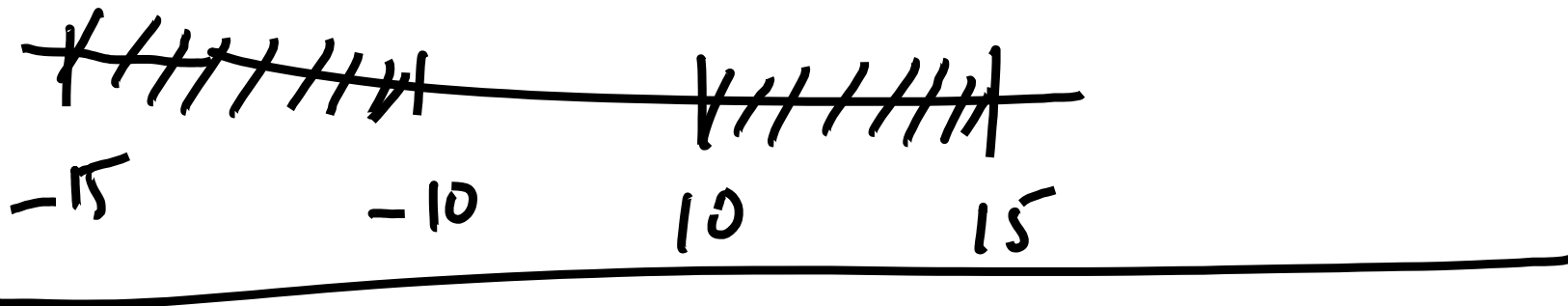
$\text{else } \text{exp3};$

T1.9  
 a)  $((c = \text{getchar()} \neq \text{EOF}) \ \&\& \ (c \neq '\n'))$

↓  
 strings.h  
 stdlib.h

a b c d ↵
e f g
EOF

b)



c)  $((c \geq 'a' \ \&\& \ c \leq 'z') \ \&\& \ (c \geq 'A' \ \&\& \ c \leq 'Z'))$

#define PI 1.41593

main(){

...

area = PI \* r \* r;  
          

stdio.h

math.h

string.h

stdlib.h

limits.h

time.h

$\sqrt{x^5}$

sqrt, pow

Chap 2

if ( exp )  
{  
    ≡  
}  
    always evaluated  
    for TRUE

(T 2.1) (b) done ✓

(T 2.2)

```
x = 7;  
while (x >= 0) {  
    printf(x);  
    x = x - 2;  
}
```

7  
5  
3  
1

```
x = x - 2;  
printf(x);
```

5  
3  
1  
-1

T2.3

```
do { num = 0;  
    printf("num++");  
} while (num <= 9);
```

0  
1  
⋮  
8  
9

```
for (i = 0; i < 10; i++)  
{  
    //  
}
```

```
for (initial val; range; update) {  
    //  
}
```



T2.4

```
for (i = 1; i <= 5; i++) {
```

```
    printf (i);
```

```
    i += 2;  $\rightarrow$  i = i + 2;
```

```
}
```

$\frac{i}{1}$   
 $4$