

Discrete math Assignment 1

21SEO21

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<-1->

sum := 0

for i := 1 to n;

sum := sum + i + 1 (a_i)

return sum

<-2->

S - sum := 0

m - sum := a₁

for i := 1 to n - 1;

for j = 1 to i + 1:

S - sum := S - S - sum + Q_j

<-3->

Input: a, n

powered - n := 1

for i: 21 to n

powered - n := powered - n · a

return ~~powered - n~~ powered - n



< 4 - >

```
product := 1
for i := 1 to n:
    product := product · ai
return product
```

< 5 - >

```
m-product = a1
s-product := 0
for o := 1 to n-1:
    for j := 1 to o+1:
        s-product := s-product + aj
    m-product := m-product · s-product
s-product := 0
return m-product
```

< 6 - >

```
product := 1
for i := 1 to n:
    product := product · ai
return product
```

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allegro

```

<7>
max := 0
min := a1
for i := 1 to n;
    if max < ai:
        max := ai:
    if min > ai:
        min := ai:
mean := (min + max) / 2
return mean

```

```

<8>
m - min := a1
for i := 1 to n:
    if min > ai:
        m - min := ai:
return m - min

```

```

<9>
for i := 1 to n:
    if ai = a;
print a

```

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←10→

for $i := 1$ to n :

if $i = pi$

print pi

←11→

Input: x

index $:= 0$

for n to 1:

if $x \leq a_n$

index $:= n$

return index - 1

←12→

if $a_1/a_2/a_3 < a_2/a_3/a_1$, then swap (a_1, a_2, a_3)

←13→

$\exists x (C(x) \wedge F(x) \wedge \neg D(x))$

←14→

c) $x = \text{thing}$

$\forall x (C(x) \wedge E(x))$

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$$d) \neg \forall x (C(x) \wedge E(x))$$

e) x_2 tools

$$\exists x (\neg C(x) \wedge E(x))$$

← 15 →

a) if there is a printer is both out of service and busy, then some job has been lost

b) if every printer is busy, then there is a job in the queue.

← 16 →

f) For every pair of students at your school, there is some cuisine about which they have the same opinion.

← 17 →

$$\exists x \forall y \neg P(x, y) \vee \forall z \neg R(x, y, z)$$

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← 18 →

a) for all reciprocal of non-zero real numbers real, there is a number non-zero real that makes statement true

b) statement have we true value

c) same condition also makes the statement true

← 19 →

$Q(2; 0)$

← 20 →

a) $\exists x \forall y \neg P(x, y) \rightarrow \neg Q(x, y)$

b) $\forall y (\neg Q(y) \vee \exists x R(x, y))$

c) $\exists x \exists y \neg R(x, y)$

d) $\exists n \forall m (n^2 > m)$

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$\langle -21 \rightarrow$

A) $y = \text{"Freed"}; \forall x (F(x, y))$

B) $x = \text{"Anna"}; \forall y (F(x, y))$

C) $\forall x \exists y (F(x, y))$

D) $\forall x \neg (F(x, y) \wedge F(x, z)) \quad z = \text{"Jerry"}$

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Kamil
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