

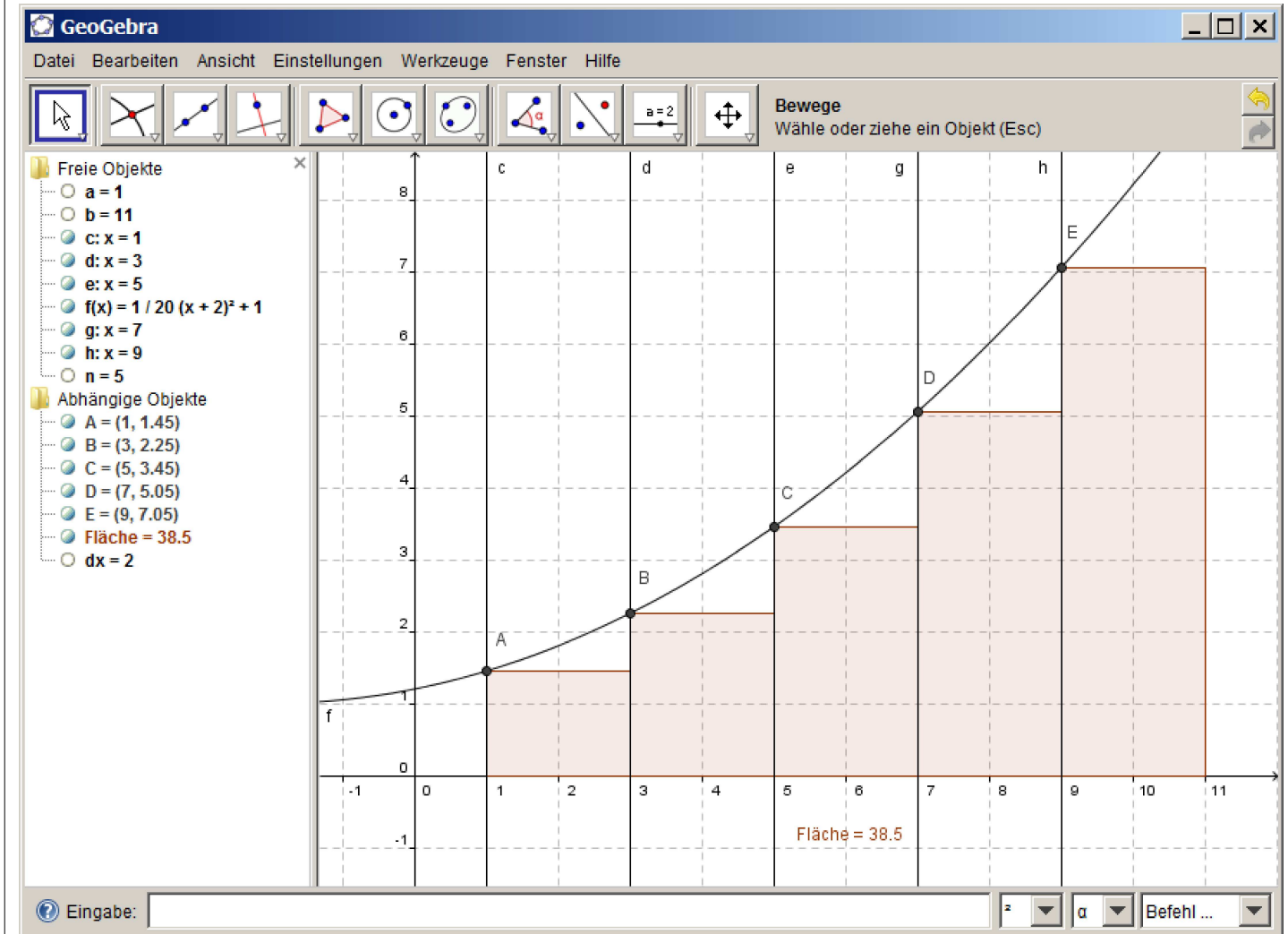
Kontrolle der Rechteckslängen

Dokumentnummer: DX1613
 Fachgebiet: Funktionen, Rechtecke
 Einsatz: ab 2HAK (erstes Lernjahr)



1 Untersumme

Figure 1:



```
(%i1) kill(all);
(%o0) done
```

1.1 Eingabe

```
(%i1) f(x):=1/20*(x+2)**2+1;
(%o1) f(x):= $\frac{1}{20}(x+2)^2+1$ 
```

```
(%i2) a:1$b:11$n:5;
(%o4) 5
```

```
(%i5) dx:(b-a)/n;
(%o5) 2
```

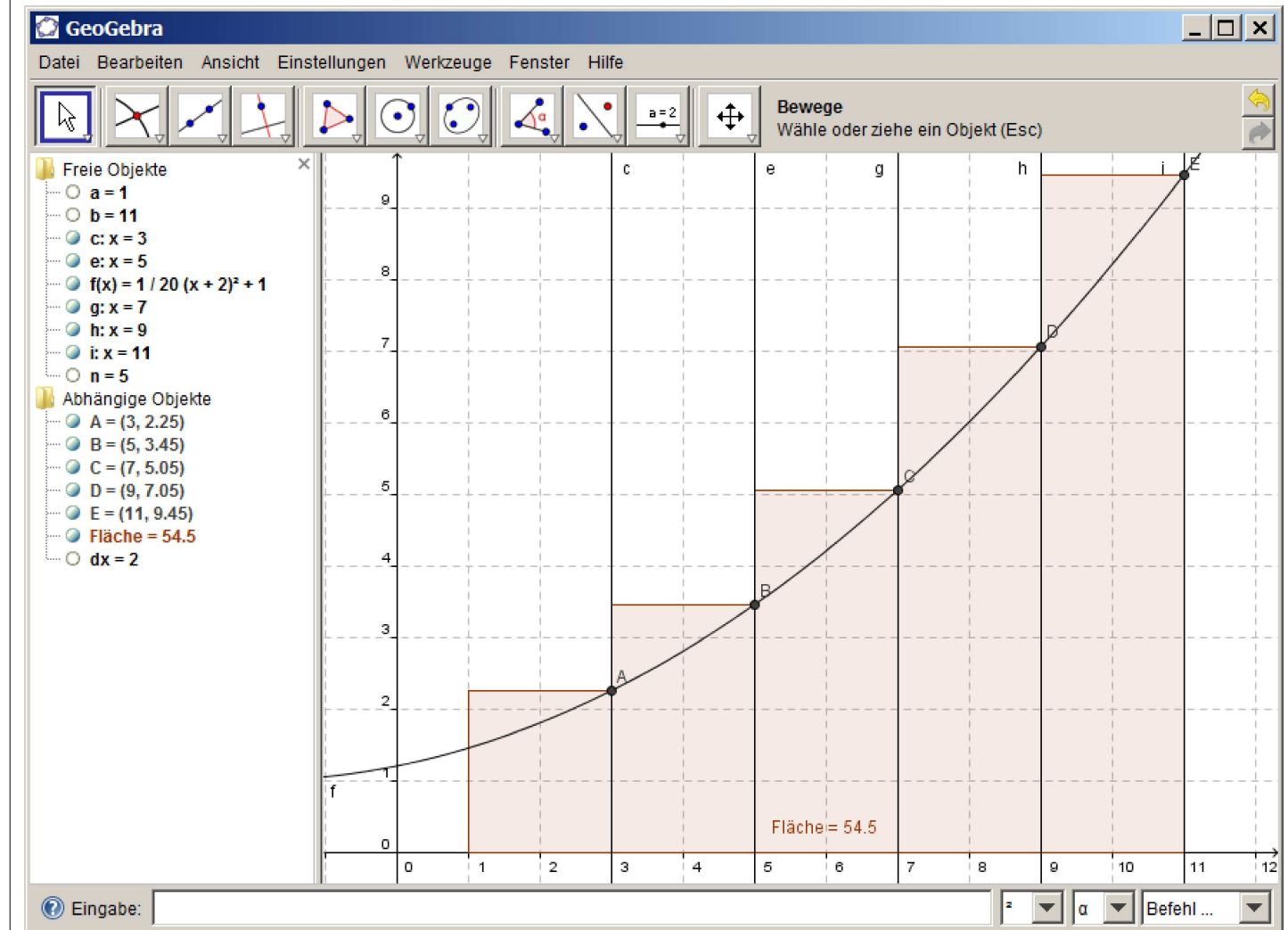
1.2 Kontrolle mit Listenverarbeitung

```
(%i10) X:makelist(a+dx*(i-1),i,1,n);
(%o10) [1, 3, 5, 7, 9]
```

```
(%i8) Y:f(X)$Y:floor(Y*100+0.5)/100.0;
(%o9) [1.45, 2.25, 3.45, 5.05, 7.05]
```

2 Obersumme

Figure 2:



2.1 Kontrolle mit Listenverarbeitung

```
(%i11) X:makelist(a+dx*i,i,1,n);
(%o11) [3, 5, 7, 9, 11]
```

```
(%i12) Y:f(X)$Y:floor(Y*100+0.5)/100.0;
(%o13) [2.25, 3.45, 5.05, 7.05, 9.450000000000001]
```

2.2 Taschenrechnerartige Kontrolle

```
(%i14) numer:true;
(%o14) true
```

```
(%i19) f(3);f(5);f(7);f(9);f(11);  
(%o19) 2.25  
(%o20) 3.45  
(%o21) 5.05  
(%o22) 7.0500000000000001  
(%o23) 9.4500000000000001
```

```
(%i24) f(x),x=3;  
(%o24) 2.25
```

```
(%i25) f(x),x=5;  
(%o25) 3.45
```

```
(%i26) f(x),x=7;  
(%o26) 5.05
```

```
(%i27) f(x),x=9;  
(%o27) 7.0500000000000001
```

```
(%i28) f(x),x=11;  
(%o28) 9.4500000000000001
```