What is the value of *f*(−3) for each function?

**1.** *f*(*x*) = 4*x* − 9

**2.** *f*(*x*) = − + 13 **3.** *f*(*x*) = −2*x* − 11

Draw the graph of each linear function.

**4.** *f*(*x*) = 3*x* − 6

**5.** *f*(*x*) = −2(*x* + 4)

**6.** *f*(*x*) =  + 5

Use the data in each table to write a linear function using function notation.

|  |  |
| --- | --- |
| *x* | *y* |
| − 5 | 8 |
| − 2 | 2 |
| 8 | −18 |

|  |  |
| --- | --- |
| *x* | *y* |
| 1 | −0.6 |
| 2 | 1.8 |
| 3 | 4.2 |

|  |  |
| --- | --- |
| *x* | *y* |
| − 5 | − 10 |
| − 2 | − 1 |
| 4 | 17 |

**7.**

**8.**

**9.**

**10.** A function, *f*(*x*) = 4*x* + 5, has a domain 0 ≤ *x* ≤ 50. What is its range?

**11.** What are the domain and range of the following relations

a**.** b. c.

|  |  |
| --- | --- |
| *x* | *y* |
| − 4 | 0.6 |
| 1 | 1.2 |
| 7 | 2.6 |

**12.**  Which of the relations in 11 are functions?

**13.** Which of the functions in 11 are one to one?

**14**. Sasha sells T-shirts. Each day she earns a set amount, plus a commission. Write a linear function ** to determine Sasha’s pay.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **T-shirts** | 1 | 2 | 3 | 4 | 5 |
| **Total Pay** | 82 | 86 | 90 | 94 | 98 |

If Sasha sells 27 T-shirts in one day how much money does she earn that day?

**15.** For a basic subscription, a cable television provider charges an activation fee  
of $60, plus $125 per month. What linear function represents the total cost of  
a basic cable subscription for *t* months? What is the total cost for two years  
of service?

**16.** Given  find  
**a.  b. **