Linear Relationships

Determine an equation, using variables x and y to represent the following linear relationships.

1. You are 10 metres from the school and walk away from the school at a speed of 2 metres per second. The time is represented by x and the distance from school by y.

2. The total cost of a field trip consists of a 200$ charge for the bus and 5$ for each entrance ticket. The number of participants is represented by x and the total cost by y.

3. Your total weekly salary consists of an initial payment of 50$ plus 13.50$ for each hour worked. The number of hours worked is represented by x and the total salary by y.

4. The length of a rectangle is three times longer than its width. The width is represented by x and the length by y.

5. Kelly is five years younger than four times Viola's age. Viola's age is represented by x and Kelly's age by y.

6. Sasha starts with 1000$ in her bank account and withdraws 50$ every week. The number of weeks is represented by x and the amount of money in her account by y.

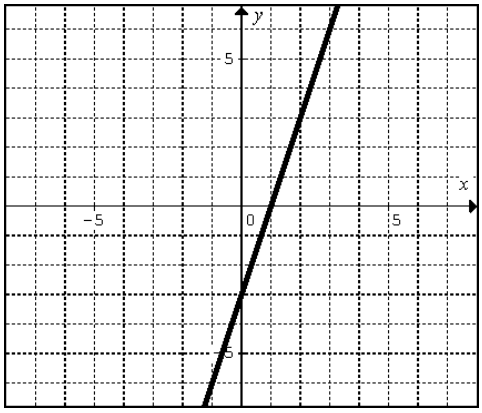
7.

x	y
0	5
1	7
2	9
3	11
4	13

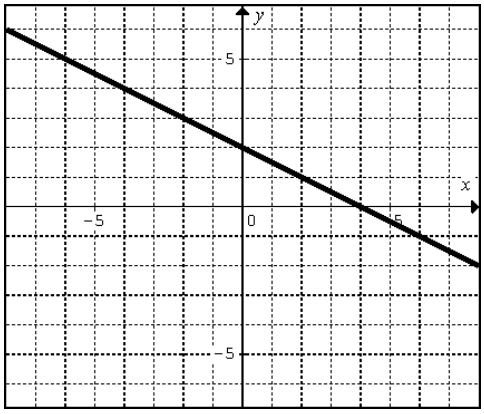
8.

x	y
1	32
2	24
3	16
4	8
5	0

9.



10.



Answers:

1. $y = 10 + 2x$ 2. $y = 200 + 50x$ 3. $y = 50 + 13.50x$ 4. $y = 3x$ 5. $y = 4x - 5$

6. $y = 100 - 50x$ 7. $y = 2x + 5$ 8. $y = 40 - 8x$ 9. $y = -3 + 3x$ 10. $y = 2 - \frac{1}{2}x$