Lineare Funktionen

Gegeben sind die Punkte A und B. Berechne m,b und f(x)

						Lösung		
1)	A(0/8)	B(2/18)	m=___	b=___	f(x) =_____	$m = \frac{18 - 8}{2 - 0} = \frac{10}{2} = 5$	$b = 8 - 5 \cdot 0 = 8$	$f(x) = 5x - 8$
2)	A(0/2)	B(2/20)	m=___	b=___	f(x) =_____	$m = \frac{20 - 2}{2 - 0} = \frac{18}{2} = 9$	$b = 2 - 9 \cdot 0 = 2$	$f(x) = 9x - 2$
3)	A(3/31)	B(3/31)	m=___	b=___	f(x) =_____	$m = \frac{31 - 31}{3 - 3} = \frac{0}{0} = 5$	$b = 31 - 5 \cdot 3 = 16$	$f(x) = 5x - 16$
4)	A(4/81)	B(5/97)	m=___	b=___	f(x) =_____	$m = \frac{97 - 81}{5 - 4} = \frac{16}{1} = 16$	$b = 81 - 16 \cdot 4 = 17$	$f(x) = 16x - 17$
5)	A(3/12)	B(4/21)	m=___	b=___	f(x) =_____	$m = \frac{21 - 12}{4 - 3} = \frac{9}{1} = 9$	$b = 12 - 9 \cdot 3 = -15$	$f(x) = 9x - 15$
6)	A(1/0)	B(2/1)	m=___	b=___	f(x) =_____	$m = \frac{1 - 0}{2 - 1} = \frac{1}{1} = 1$	$b = 0 - 1 \cdot 1 = -1$	$f(x) = 1x - 1$
7)	A(2/-19)	B(4/-53)	m=___	b=___	f(x) =_____	$m = \frac{-53 - (-19)}{4 - 2} = \frac{-34}{2} = -17$	$b = -19 - (-17) \cdot 2 = 15$	$f(x) = -17x + 15$
8)	A(0/18)	B(2/56)	m=___	b=___	f(x) =_____	$m = \frac{56 - 18}{2 - 0} = \frac{38}{2} = 19$	$b = 18 - 19 \cdot 0 = 18$	$f(x) = 19x + 18$
9)	A(5/84)	B(3/58)	m=___	b=___	f(x) =_____	$m = \frac{58 - 84}{3 - 5} = \frac{-26}{-2} = 13$	$b = 84 - 13 \cdot 5 = 19$	$f(x) = 13x + 19$
10)	A(-2/33)	B(4/-39)	m=___	b=___	f(x) =_____	$m = \frac{-39 - 33}{4 - (-2)} = \frac{-72}{6} = -12$	$b = 33 - (-12) \cdot (-2) = 9$	$f(x) = -12x + 9$
11)	A(4/-2)	B(5/-7)	m=___	b=___	f(x) =_____	$m = \frac{-7 - (-2)}{5 - 4} = \frac{-5}{1} = -5$	$b = -2 - (-5) \cdot 4 = 18$	$f(x) = -5x + 18$