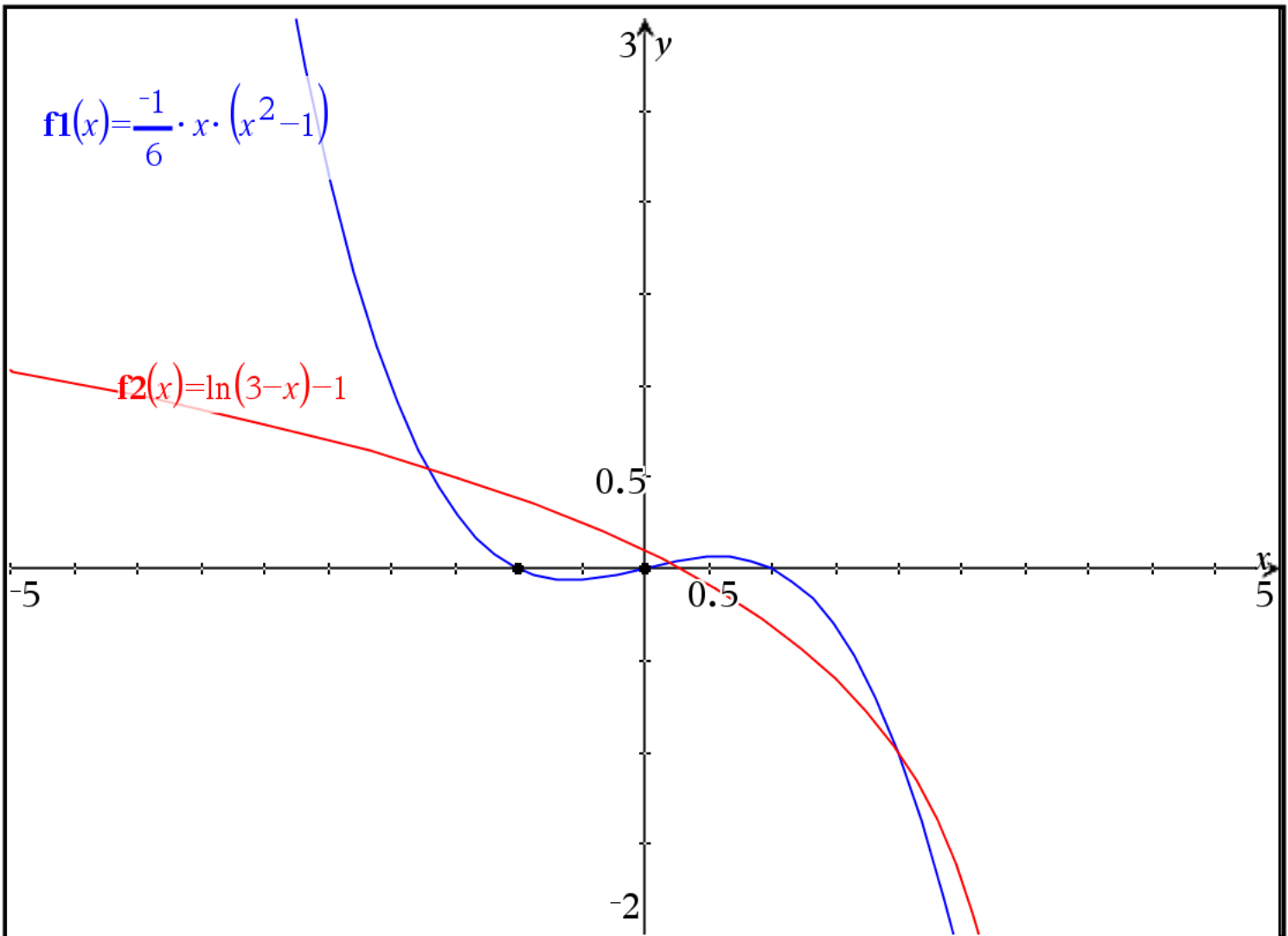


Ex 1



tangentLine( $f2(x), x, 0$ )

$$\frac{-x}{3} + \ln(3) - 1$$

solve( $f1(x)=0, x$ )

$x = -1$  or  $x = 0$  or  $x = 1$

$f1(0)$

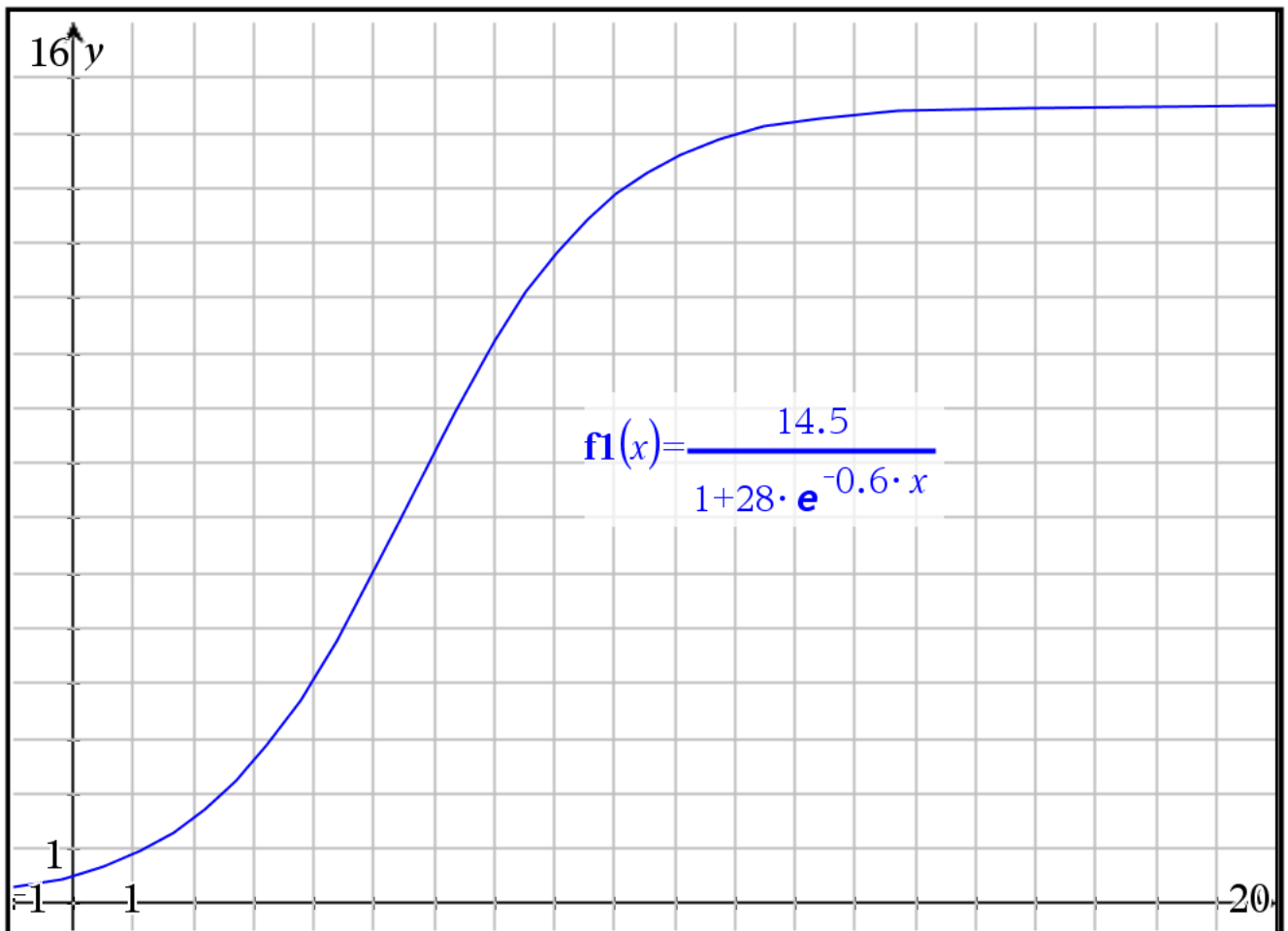
0

⚠ solve  $\begin{cases} y=f1(x) \\ y=f2(x) \end{cases}, \{x,y\}$   
 $x=-1.71122$  and  $y=0.549946$  or  $x=0.195276$  and  $y=0.031305$

⚠ solve  $\begin{cases} y=f1(x) \\ y=f2(x) \end{cases}, \{x,y\}$   
 $x=0.031305$  or  $x=2.$  and  $y=-1.$  or  $x=2.93422$  and  $y=-3.72138$



Ex 2



$f1(9)$	12.8721
$f1(15)$	14.4501
$f1(0)$	0.5
$\text{solve}\left(f1(x)=\frac{14.5}{2},x\right)$	$x=5.55367$
$ff1(x):=\frac{d}{dx}(f1(x))$	<i>Done</i>
$ff1(9)$	0.867066

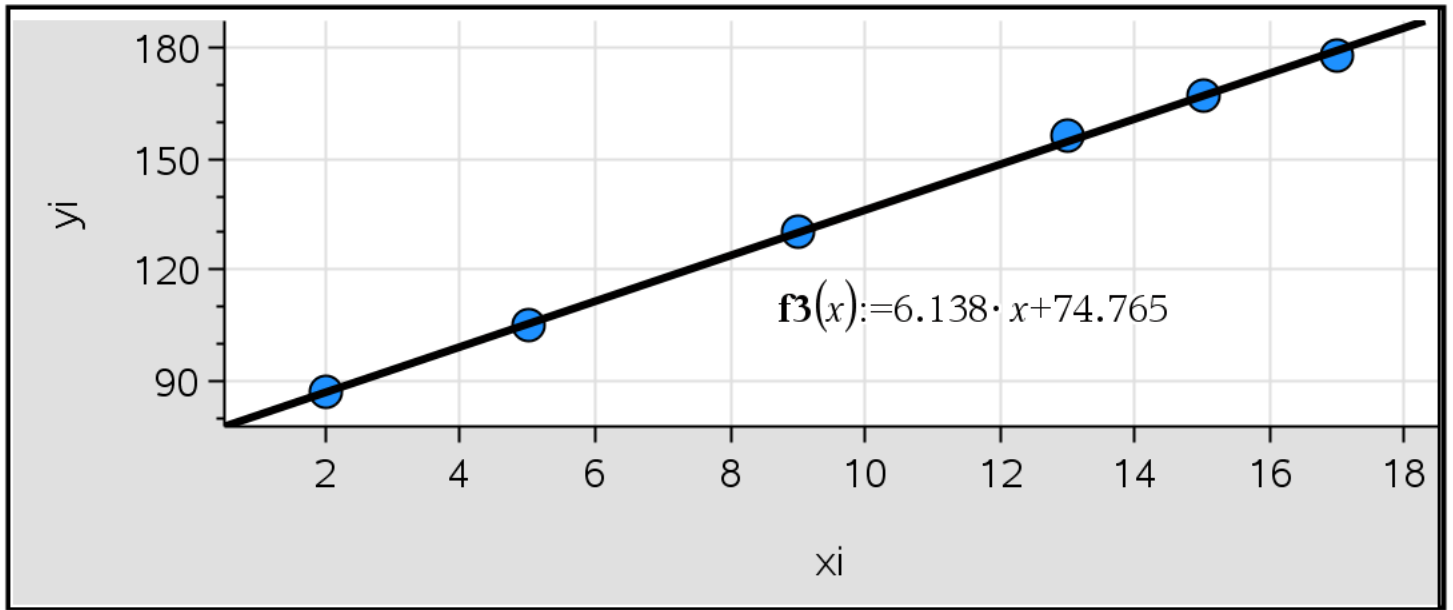
Ex 3

$0.7 \cdot 0.02 + 0.3 \cdot 0.04$	0.026
$\frac{0.7 \cdot 0.02}{0.026}$	0.538462
$150 \cdot 0.026$	3.9
$\sqrt{150 \cdot 0.026 \cdot 0.974}$	1.949
$\text{binomCdf}(150, 0.026, 4, 4)$	0.197764
$\text{binomCdf}(150, 0.026, 4, 10)$	0.547126

Ex 4

	A xi	B yi	C	D	E
=				=LinRegMx(xi,yi,1 ):	
1	2	87	Title	Linear Regression...	
2	5	105	RegEqn	m*x+b	
3	9	130	m	6.1379	
4	13	156	b	74.7647	
5	15	167	r <sup>2</sup>	0.999456	
6	17	178	r	0.999728	
7			Resid	{-0.040501446480...	

A1 2



	F xi1	G yi1	H	I	J xi2	K yi2	L	M
=				=TwoVar(x)				=TwoV
1	2	87	Title	Two-Va...	13	156	Title	Two-..
2	5	105	$\bar{x}$	5.33333	15	167	$\bar{x}$	15.
3	9	130	$\Sigma x$	16.	17	178	$\Sigma x$	45.
4			$\Sigma x^2$	110.			$\Sigma x^2$	683.
5			$s_x := \dots$	3.51188			$s_x := \dots$	2.
6			$\sigma_x := \dots$	2.86744			$\sigma_x := \dots$	1.63...
7			n	3.			n	3.
8			$\bar{y}$	107.333			$\bar{y}$	167.

A1 2

$$\text{solve}(6.138 \cdot x + 74.765 = 149, x)$$

$$x = 12.0943$$

$$\text{solve}\left(\begin{cases} 5.333 \cdot m + p = 107.333 \\ 15 \cdot m + p = 167 \end{cases}, \{m, p\}\right)$$

$$m = 6.17224 \text{ and } p = 74.4165$$

$$6.172 \cdot 11 + 74.417$$

$$142.309$$

