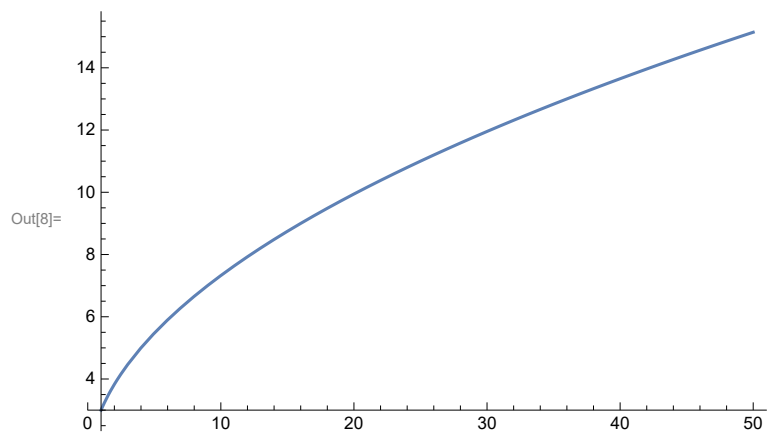


In[1]:= **FullSimplify** $\left[a \sqrt{x_1} + b \sqrt{x_2} /. \{a \rightarrow 2, b \rightarrow \frac{1}{2}, x_2 \rightarrow 4\}\right]$

Out[1]= $1 + 2 \sqrt{x_1}$

In[8]:= **Plot** $\left[1 + 2 \sqrt{x_1}, \{x_1, 1, 50\}\right]$



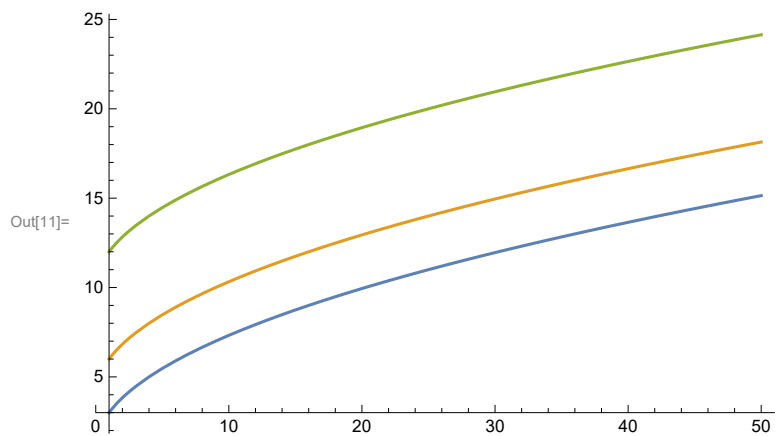
In[9]:= **FullSimplify** $\left[a \sqrt{x_1} + b \sqrt{x_2} /. \{a \rightarrow 2, b \rightarrow 2, x_2 \rightarrow 4\}\right]$

Out[9]= $2 \left(2 + \sqrt{x_1}\right)$

In[10]:= **FullSimplify** $\left[a \sqrt{x_1} + b \sqrt{x_2} /. \{a \rightarrow 2, b \rightarrow 5, x_2 \rightarrow 4\}\right]$

Out[10]= $2 \left(5 + \sqrt{x_1}\right)$

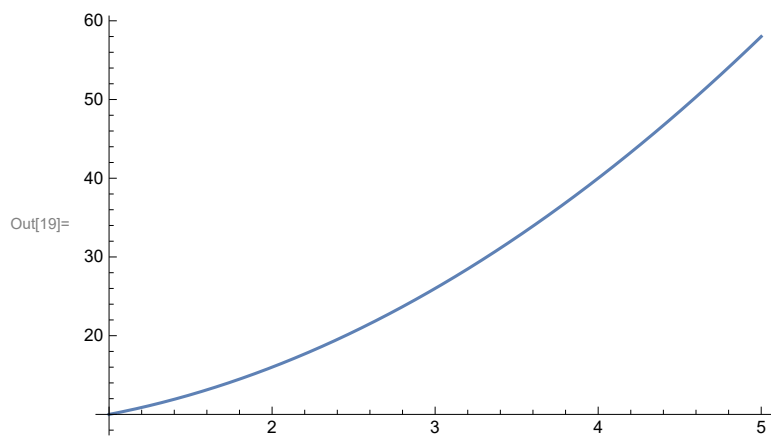
In[11]:= **Plot** $\left[\left\{1 + 2 \sqrt{x_1}, 2 \left(2 + \sqrt{x_1}\right), 2 \left(5 + \sqrt{x_1}\right)\right\}, \{x_1, 1, 50\}\right]$



In[12]:= **FullSimplify** $\left[a x_1^2 + b x_2^2 /. \{a \rightarrow 2, b \rightarrow \frac{1}{2}, x_2 \rightarrow 4\}\right]$

Out[12]= $2 \left(4 + x_1^2\right)$

In[19]:= **Plot**[$2 (4 + x_1^2)$, { x_1 , 1, 5}]



In[14]:= **FullSimplify**[$a x_1^2 + b x_2^2 /. \{a \rightarrow 2, b \rightarrow 2, x_2 \rightarrow 4\}$]

Out[14]= $2 (16 + x_1^2)$

In[15]:= **FullSimplify**[$a x_1^2 + b x_2^2 /. \{a \rightarrow 2, b \rightarrow 5, x_2 \rightarrow 4\}$]

Out[15]= $2 (40 + x_1^2)$

In[18]:= **Plot**[{ $2 (4 + x_1^2)$, $2 (16 + x_1^2)$, $2 (40 + x_1^2)$ }, { x_1 , 1, 5}]

