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Math 1P01 - Lab #04
Assingment #01 - Maple

Question 27

Graph the given functions on a common screen. Explain how these graphs are related.

Let's define each of the given functions, as follows:

`> y2:=x->2^x;`

$$y2 := x \mapsto 2^x$$

(1)

`> ye:=x->exp(x);`

$$ye := x \mapsto e^x$$

(2)

`> y5:=x->5^x;`

$$y5 := x \mapsto 5^x$$

(3)

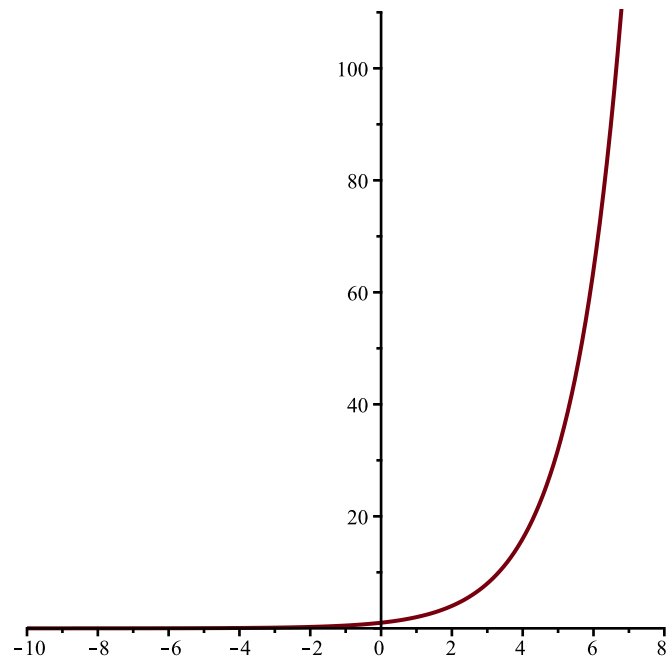
`> y20:=x->20^x;`

$$y20 := x \mapsto 20^x$$

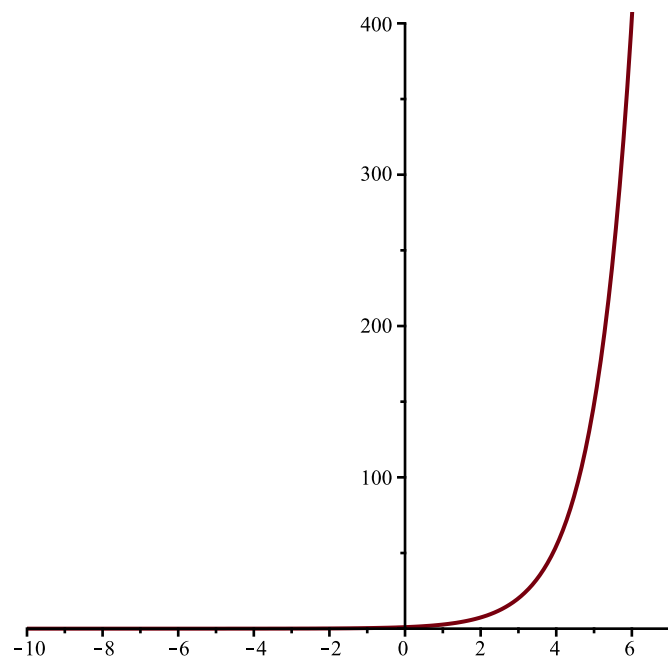
(4)

Then, let's plot them, one by one:

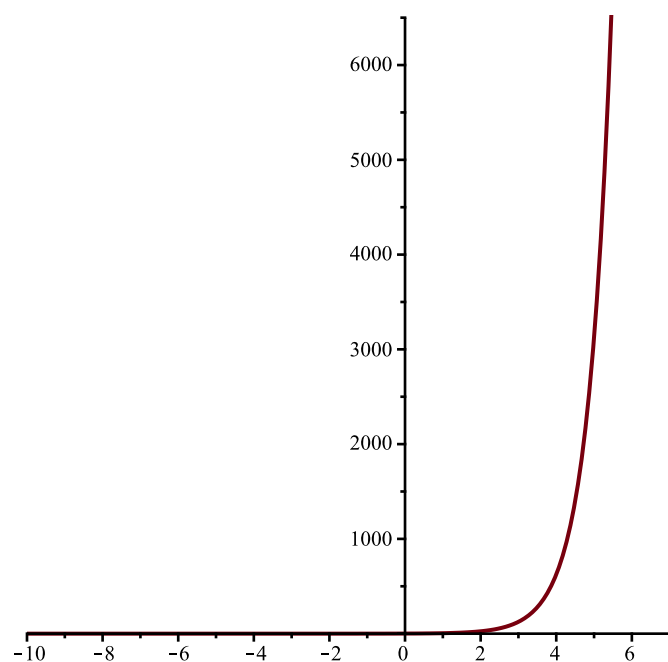
`> plot(y2);`



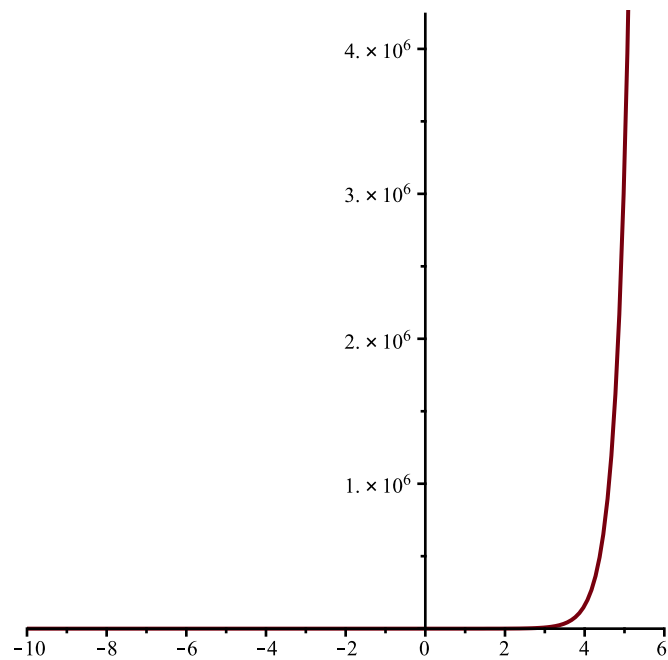
`> plot(ye);`



```
> plot(y5);
```

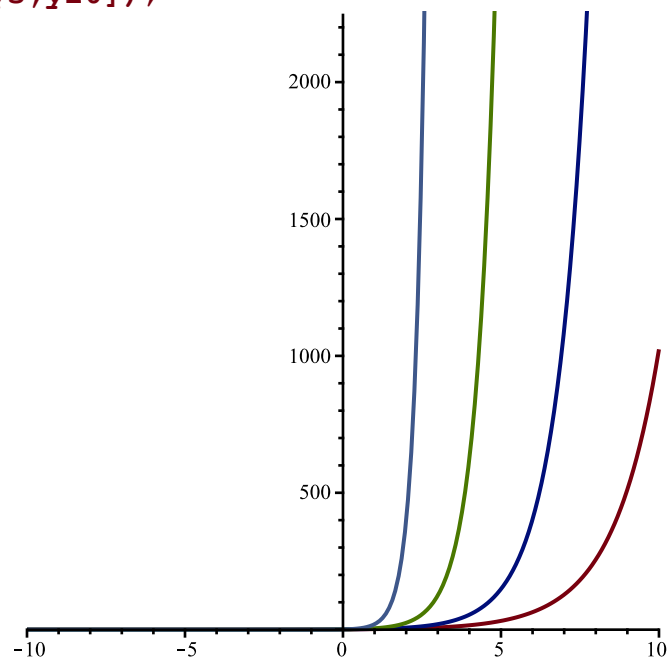


```
> plot(y20);
```



Now, all together:

```
> plot([y2,ye,y5,y20]);
```



Let's plot all of them together with a zoom focused on y-intercept:

```
> with(plots):
```

```
> plot({y2(x),ye(x),y5(x),y20(x)},x=-0.002..0.002);
```

