```
> read `multi.maple`;
```

$$com := (x, y) \rightarrow x + I\, y$$

$$m := 2$$

$$Z_1 := 1 + I$$

$$Z_2 := 3 + 2\, I$$

$$q_1 := 3$$

$$q_2 := 5$$

$$\phi := z \rightarrow \sum_{i=1}^{m} q_i \log(z - Z_i)$$

me_init := **proc**(*pmax*, *a*, *Q*)

local *k*;

  for *k* **to** *pmax* **do** *a*[*k*] := −sum(*q*[*i*]*Z[*i*]^*k* / *k*, *i* = 1 .. *m*) **od**; *Q* := sum(*q*[*i*], *i* = 1 .. *m*)

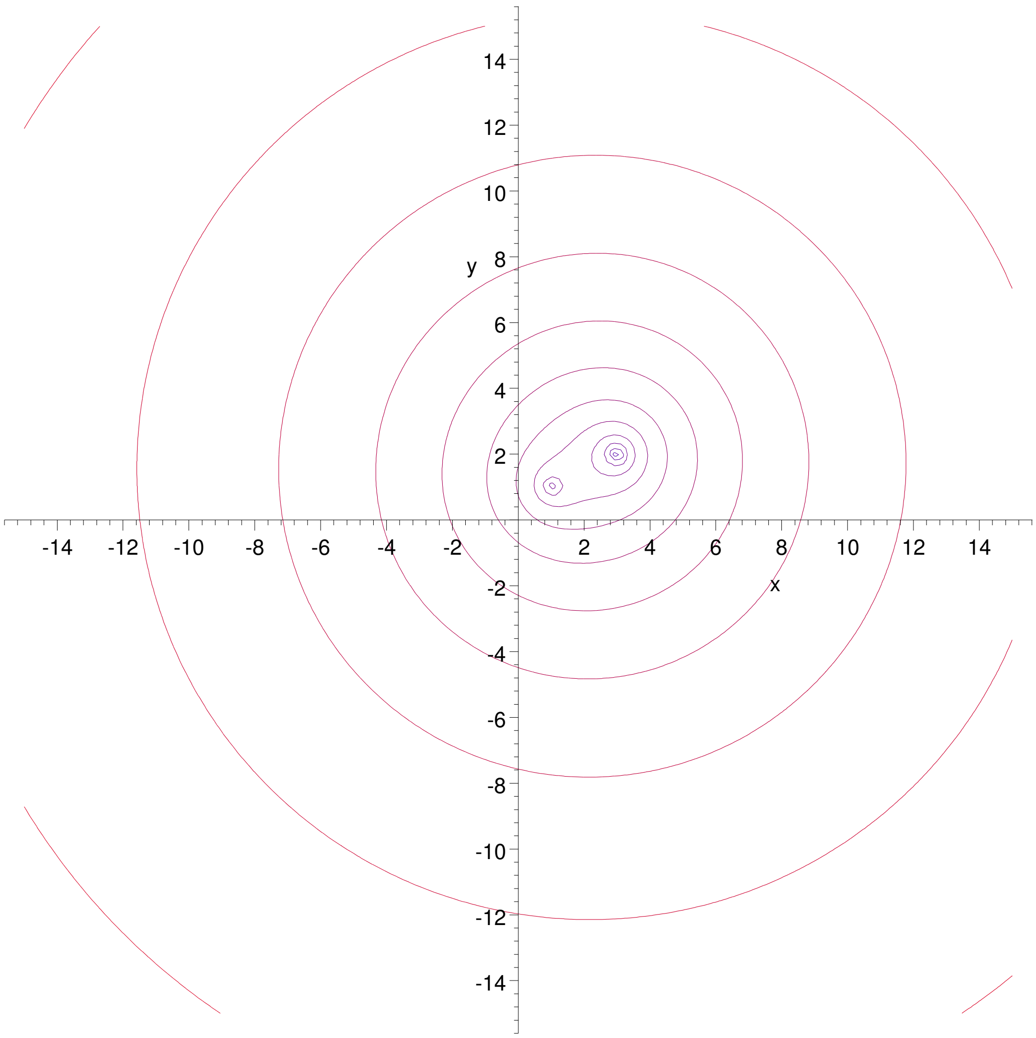
end

$$me := (p, z) \rightarrow Q \log(z) + \left(\sum_{k=1}^{p} \frac{a_k}{z^k} \right)$$

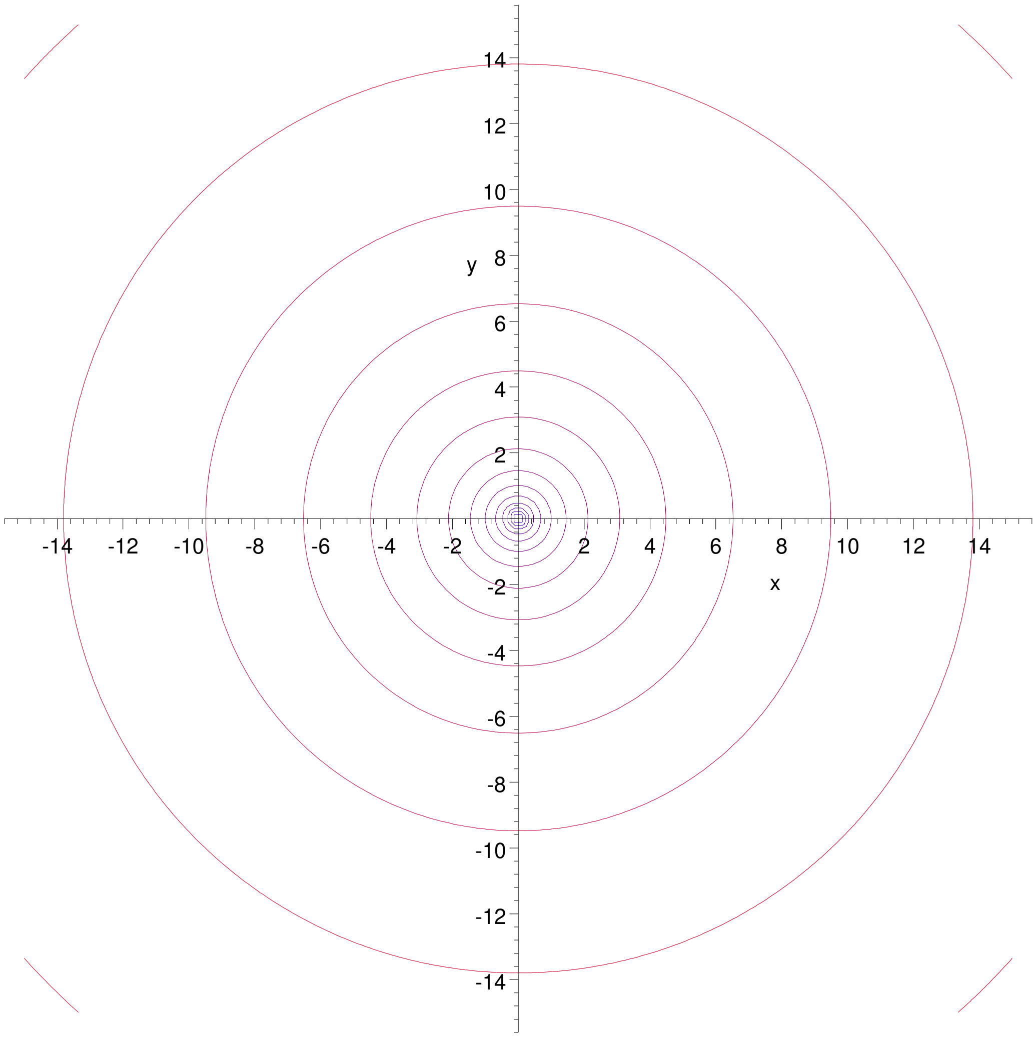
$$8$$

$$gr := 160$$

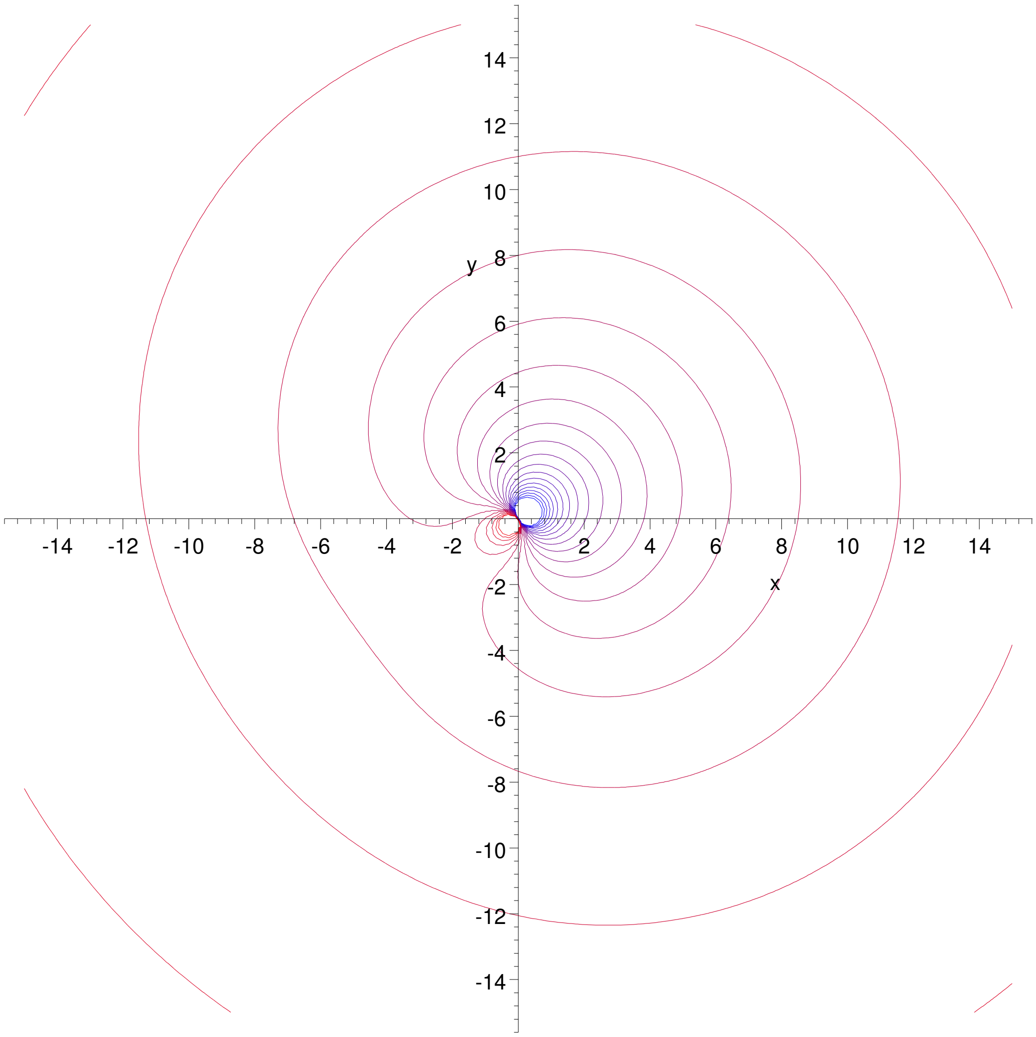
exact potential



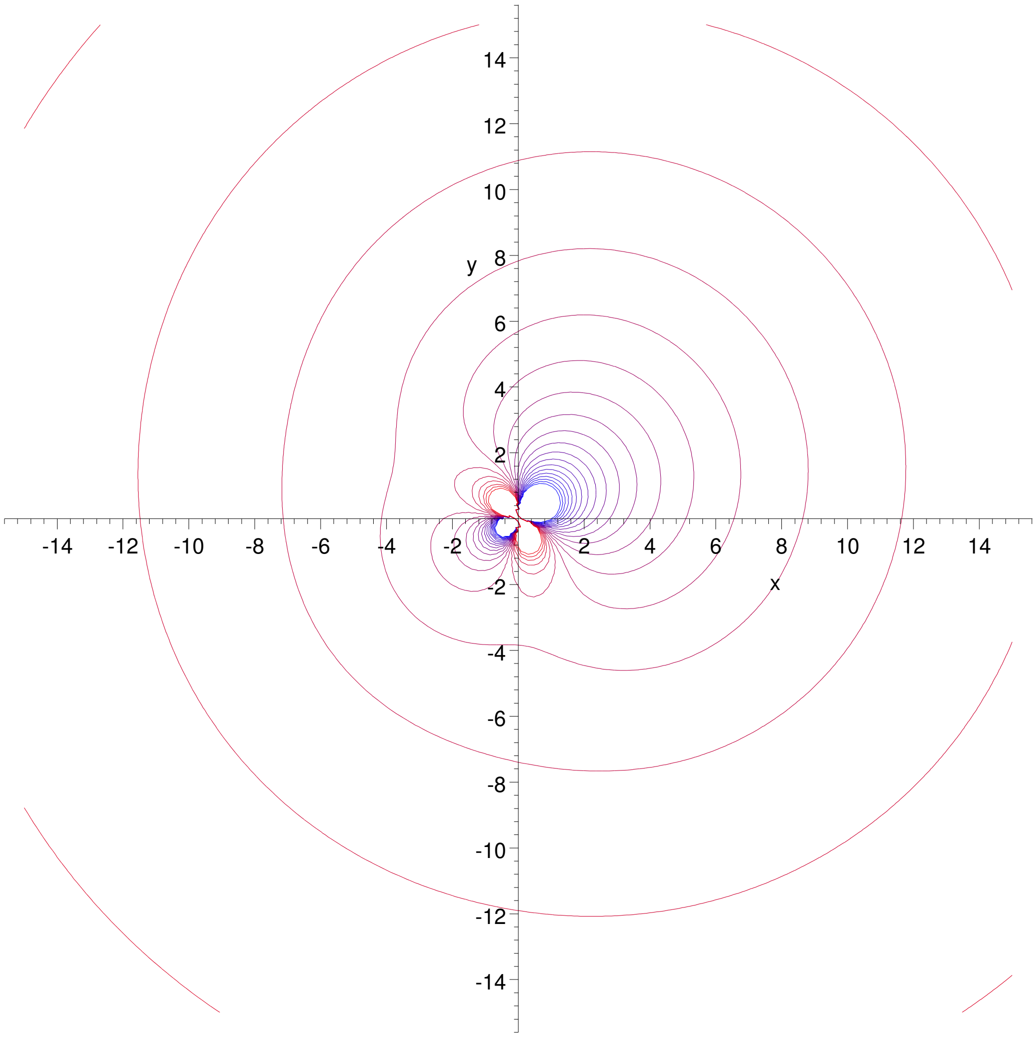
multipole, p=0

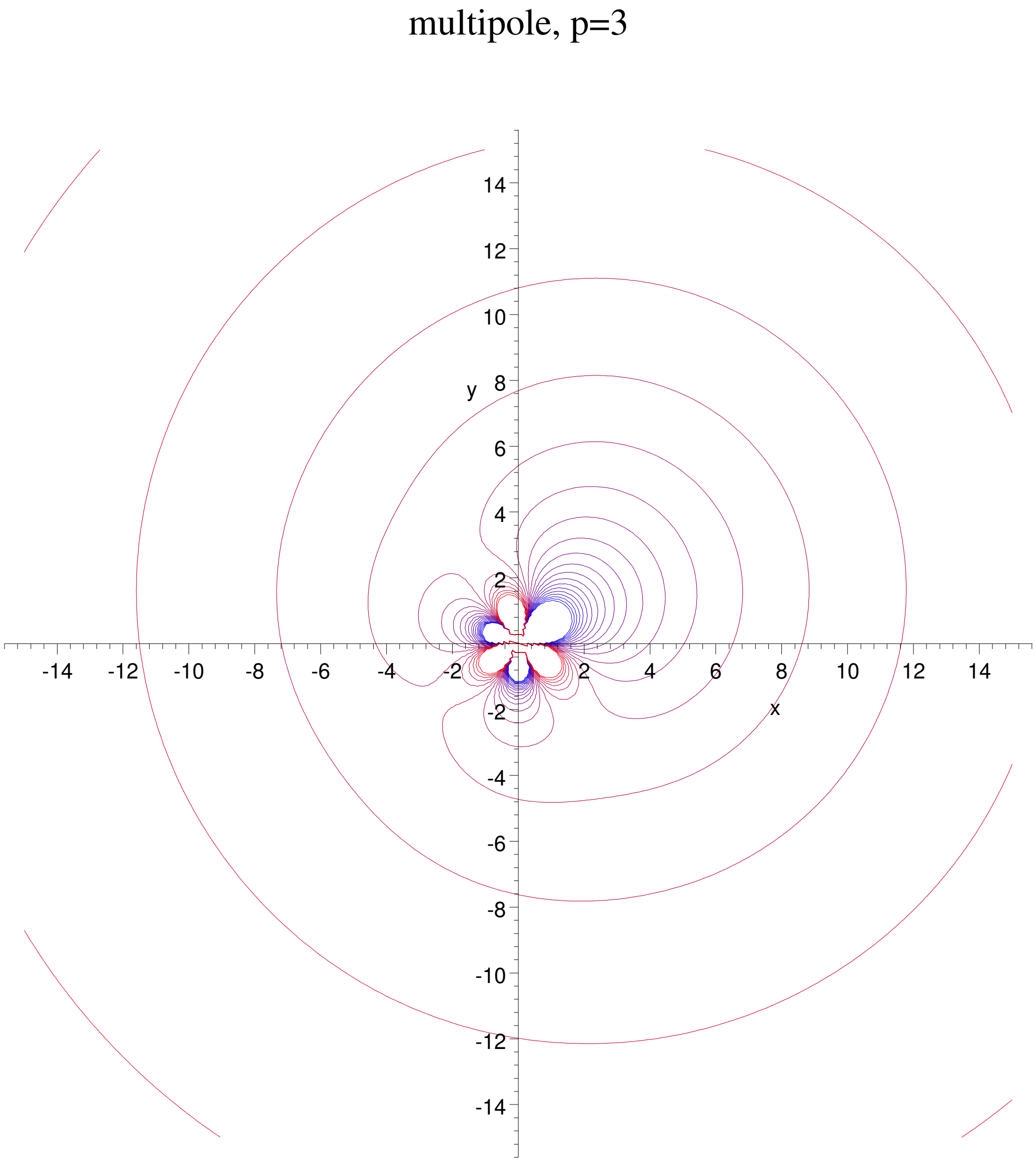


multipole, p=1



multipole, p=2






```
System error, ran out of memory
>
```