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(%i16) kill(all)$
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```
(%i1) x1:0$
      y1:0$
      m1:1/6$
      x2:3$
      y2:9$
      m2:2$
```

```
(%i7) A: matrix(
      [x1^3,x1^2,x1,1],
      [x2^3,x2^2,x2,1],
      [3*x1^2,2*x1,1,0],
      [3*x2^2,2*x2,1,0]
      );
```

```
(%o7) 
$$\begin{bmatrix} 0 & 0 & 0 & 1 \\ 27 & 9 & 3 & 1 \\ 0 & 0 & 1 & 0 \\ 27 & 6 & 1 & 0 \end{bmatrix}$$

```

```
(%i8) g: transpose(matrix([y1,y2,m1,m2]));
```

```
(%o8) 
$$\begin{bmatrix} 0 \\ 9 \\ \frac{1}{6} \\ 2 \end{bmatrix}$$

```

```
(%i9) Ai: invert(A)$
```

```
(%i10) p: Ai.g;
```

```
(%o10) 
$$\begin{bmatrix} -\frac{23}{54} \\ \frac{20}{9} \\ \frac{1}{6} \\ 0 \end{bmatrix}$$

```

```
(%i11) curve: p[1,1]*x^3+p[2,1]*x^2+p[3,1]*x+p[4,1];
```

```
(%o11) 
$$-\frac{23}{54}x^3 + \frac{20}{9}x^2 + \frac{x}{6}$$

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```
(%i12) dydx: diff(curve,x)$
      d2ydx2: diff(curve,x,2)$
      radius: (1+dydx^2)^(3/2)/abs(d2ydx2);
```

(%o14)
$$\frac{\left(\left(-\frac{23}{18}x^2 + \frac{40}{9}x + \frac{1}{6}\right)^2 + 1\right)^{3/2}}{\left|\frac{23}{9}x - \frac{40}{9}\right|}$$

```
(%i15) plot2d([curve,1/radius],[x,x1,x2]);
(%o15)
```