```
> read ‘circumscribed.mpl‘:
```

circumscribed :=

```
proc(a,b)
local mx,my,r,trian,circ;
   mx := .5 ;
   my := evalf(1/2*(-a+a^2+b^2)/b);
   r := evalf(sqrt(mx^2+my^2));
   trian := subs(
     BLACK = GREEN,plot([0,0,1,0,a,b,0,0],style = LINE)
     );
   circ := subs(BLACK = GREEN,
      plot([mx+r*cos(t),my+r*sin(t),t = 0 .. 2*Pi]));
   PLOT(op(trian),op(3,circ))
end
```

```
> circumscribed(4,2);
```

```
> ?PLOT
```

```
> read ‘circumscribed.mpl‘;
```

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     );
   circ := subs(BLACK = GREEN,
      plot([mx+r*cos(t),my+r*sin(t),t = 0 .. 2*Pi]));
   PLOT(op(circ),op(3,trian))
end
```

```
> circumscribed(4,2);
```

```
> mAB := x - 1/2;
```

$$mAB := x - \frac{1}{2}$$

```
> mAC := (y - b/2) +a/b*(x - a/2);
```

$$mAC := y - \frac{1}{2}\,b + \frac{a\left(x - \frac{1}{2}\,a\right)}{b}$$

```
> ?linsolve
```

```
> ?solve
```

```
> solve({mAB, mAC}, {x, y});
```

$$\left\{y=\frac{1}{2}\,\frac{b^2+a^2-a}{b},\, x=\frac{1}{2}\right\}$$

```
> mBC := (y-b/2) +(a-1)/b * (x-(a+1)/2);
```

$$mBC := y-\frac{1}{2}\,b+\frac{(a-1)\left(x-\frac{1}{2}\,a-\frac{1}{2}\right)}{b}$$

```
> solve({mAB, mBC}, {x, y});
```

$$\left\{y=\frac{1}{2}\,\frac{b^2+a^2-a}{b},\, x=\frac{1}{2}\right\}$$

```
>
>
```