

PRINT NAME

PERM NUMBER

No calculators

Put your answer in the

box

provided.

TA: ☐ Garo ☐ Trevor  
☐ SamTime: ☐ 8am ☐ 6pm  
☐ 5pm ☐ 7pm

1. Andy is out for a run. The rate at which Andy burns calories depends on the pace of his run – a faster pace burns calories quicker. Let  $x$  be his pace, in minutes per kilometer, and  $f(x)$  be the rate at which he burns calories (in calories per hour) at pace  $x$ .

(a) What are the units of  $f'(x)$ ?

(b) If  $f(x) = 240/x$ , what is the average rate of change between  $x = 8$  and  $x = 10$ ?