3.1

Paul's velocity was 0 from t=(0,2) and (4,6)
Paul was moving at a costant rate from
t=(2,4) and (6,8)

3.2

2 m/s

3.3

0 m/s

3.4

3m/s

3.5

$\vec{v} = 3\hat{x}$ m/s
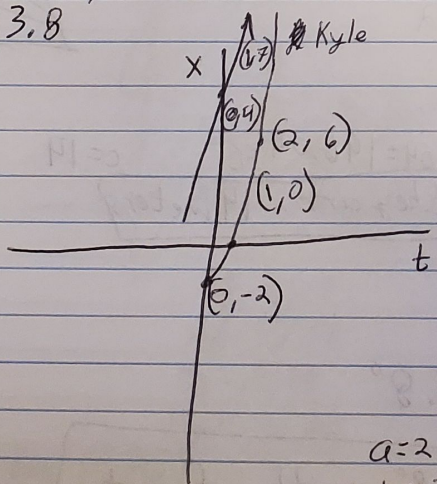$\vec{v} = 2\hat{x}$ m/s

3.6

2 meters

3.7

no, he walked 10 meters in total

3.8

$x_s(t) = 3t + 4$
$x_k(t) = 2t^2 - 2$

$2t^2 - 2 = 3t + 4$

$\downarrow$

$2t^2 - 3t - 6 = 0$

$(2t + \cancel{~})(\cancel{~})$

$(2t - 6)(t + 1) = 0$

$a = 2$
$b = -2$
$c = -6$

$\dfrac{2 \pm \sqrt{4 - 4(2)(6)}}{4}$

$\boxed{t = \dfrac{2 \pm \sqrt{52}}{4}}$

3.9 2

3.10   Stan

3.11   Stan

3.12   Kyle   ~~Stan got pas~~ Kyle surpassed Stan at ≈ 2.3 seconds

3.12   Stan is constand
        Kyle is not constant / accelorating

3.13   t = 0

3.14   the other answer does not work 'y a practical
        sense because the time is negative