

1. What is the maximum velocity of the object? 20 m/s, S
2. When did the object reverse its direction? 50s, 65s, 90s
3. What is the velocity of the object at 90 s? 0 m/s
4. What is the acceleration of the object at 65 s? 2.4 m/s², # N
5. What is the acceleration of the object at 115 s? 0.57 m/s², S
6. How much time did the object spend traveling south? 65s
7. What is the maximum speed of the object? 20 m/s
8. What is the total distance traveled by the object? 1100 m
9. What is the average velocity of the object during its trip? 0.57 m/s, S
10. What is the average speed of the object during its trip? 7.9 m/s

(65s) 4. $(60, -12), (70, 12)$

$$\vec{a} = \frac{-12 - 12}{60 - 70} = +2.4 \text{ m/s}^2$$

(115s) 5. $(90, 0), (125, -20)$

$$\vec{a} = \frac{0 + 20}{90 - 125} = -0.57 \text{ m/s}^2$$

8. $d = 360 \text{ m} + 90 \text{ m} + 150 \text{ m} + 500 \text{ m} = 1100 \text{ m}$

9.
$$\vec{v}_{ave} = \frac{360 - 90 + 150 - 500}{140} = -0.57 \text{ m/s}$$

10.
$$v_{ave} = \frac{360 + 90 + 150 + 500}{140} = 7.9 \text{ m/s}$$