

Name \_\_\_\_\_

## Intergalactic Travel Calculations Answer Key

1. Segment times: 125 h, 83.33 h, 166.67 h; total 375 h; average speed 24,000 km/h.
2. Total distance 400,000 km; average speed 50,000 km/h.
3. Total distance 1,000,000 km; times per leg 5 h, 5 h, 5 h; coasts 0.5 h and 0.333 h; total time 15.833 h (15 h 50 min); average speed  $\approx 63,158$  km/h.
4. Meeting time 25 h; meeting point 700,000 km from Craft A's start.
5. Catch-up time 7 h after the faster ship departs; meeting distance 350,000 km from the station.
6. Travel time 40 h; total to timestamp 40 h 45 min; timestamp at 01:45 two days after launch.
7. a) 2 h; b) 2 h 40 min; c) average speed 5,625 km/h.