

**Worksheet # 2:** *Solve the Distance (d), Rate(r)/Speed and Time(t) Problems*

Remember to read the problems carefully and set up a diagram or chart to help you set up the equations. Remember to use the right formula:

$$d = rt \text{ or } r = \frac{d}{t} \text{ or } t = \frac{d}{r}$$

|   | <i>d</i> | <i>r</i> | <i>t</i> |
|---|----------|----------|----------|
| 1 |          |          |          |
| 2 |          |          |          |

1. Anna took her scooter and headed to the beach driving 20 mph. Breanna left two hours later and also headed to the beach on her scooter driving 20 mph.

*How many hours did Anna drive before Breanna caught up with her?*

|         | <i>d</i> | <i>r</i> | <i>t</i> |
|---------|----------|----------|----------|
| Anna    |          |          |          |
| Breanna |          |          |          |

- 2.) A jet took off for Toronto, heading west at a speed of 405 mph. Another jet left for Toronto from the same airport sometime after the first jet took off and it was traveling at a speed of 486 mph. Ten hours later, the second jet caught up with the first jet.

*How long did the jet fly before the 2<sup>nd</sup> jet caught up?*

|                     | <i>d</i> | <i>r</i> | <i>t</i> |
|---------------------|----------|----------|----------|
| 1 <sup>st</sup> Jet |          |          |          |
| 2 <sup>nd</sup> Jet |          |          |          |

- 3.) James drove at a speed of 42 mph heading to the restaurant. Ariel left an hour later for the restaurant at a speed of 63 mph.

*How many hours did James travel before Ariel caught up to him?*

|       | <i>d</i> | <i>r</i> | <i>t</i> |
|-------|----------|----------|----------|
| James |          |          |          |
| Ariel |          |          |          |

## Worksheet # 2 Answers: Solve the Distance ( $d$ ), Rate( $r$ )/Speed and Time( $t$ ) Problems

Remember to read the problems carefully and set up a diagram or chart to help you set up the equations. Remember to use the right formula:

$$d = rt \text{ or } r = \frac{d}{t} \text{ or } t = \frac{d}{r}$$

1. Anna took her scooter and headed to the beach driving 20 mph. Breanna left two hours later and also headed to the beach on her scooter driving 20 mph.

How many hours did Anna drive before Breanna caught up with her? **6 hours**

|         | $d$ | $r$ | $t$ |
|---------|-----|-----|-----|
| Anna    |     |     |     |
| Breanna |     |     |     |

- 2.) A jet took off for Toronto, heading west at a speed of 405 mph. Another jet left for Toronto from the same airport sometime after the first jet took off and it was traveling at a speed of 486 mph. Ten hours later, the second jet caught up with the first jet.

How long did the jet fly before the 2<sup>nd</sup> jet caught up? **12 hours**

|                     | $d$ | $r$ | $t$ |
|---------------------|-----|-----|-----|
| 1 <sup>st</sup> Jet |     |     |     |
| 2 <sup>nd</sup> Jet |     |     |     |

- 3.) James drove at a speed of 42 mph heading to the restaurant. Ariel left an hour later for the restaurant at a speed of 63 mph.

How many hours did James travel before Ariel caught up to him? **3 hours**

|       | $d$ | $r$ | $t$ |
|-------|-----|-----|-----|
| James |     |     |     |
| Ariel |     |     |     |