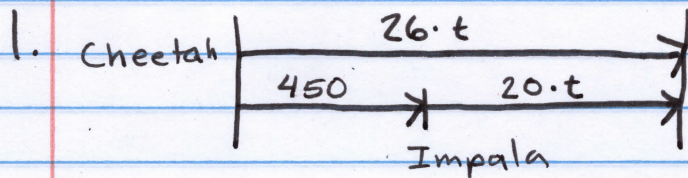


Rate Homework Answers



$$26t = 450 + 20t$$

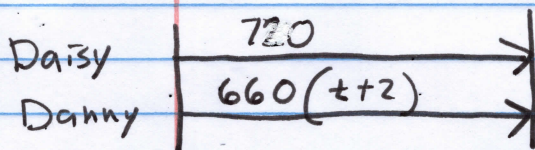
$$\begin{array}{r} -20t \\ \hline \end{array}$$

$$\frac{6t}{6} = \frac{450}{6}$$

$$t = 75 \text{ seconds}$$

2. Two Ways to Do This.

Method 1:



$$720t = 660(t+2)$$

$$720t = 660t + 1320$$

$$\begin{array}{r} -660t \quad -660t \\ \hline \end{array}$$

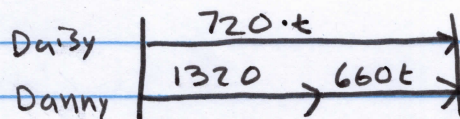
$$\frac{60t}{60} = \frac{1320}{60}$$

$$t = 22 \text{ min}$$

Method 2:

If Danny rides for 2 minutes at a speed of 660 m/min, then he will travel 1320 meters.

$$\begin{aligned} \text{Distance} &= \text{Speed} \times \text{Time} \\ &= 660 \times 2 \\ &= 1320 \text{ m} \end{aligned}$$

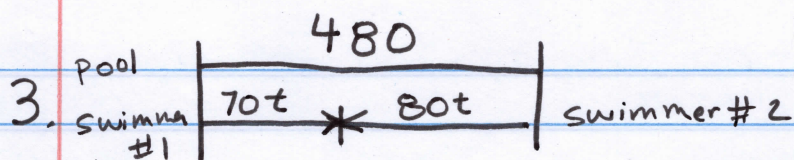


$$720t = 1320 + 660t$$

$$\begin{array}{r} -660t \quad -660t \\ \hline \end{array}$$

$$\frac{60t}{60} = \frac{1320}{60}$$

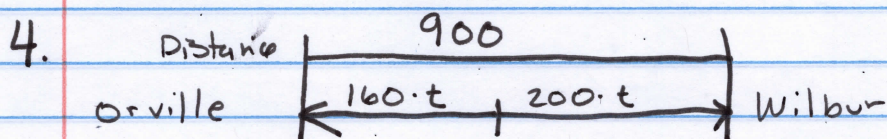
$$t = 22 \text{ min}$$



$$480 = 70t + 80t$$

$$480 = 150t$$

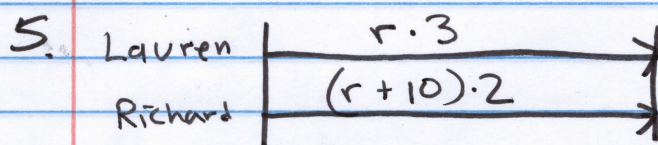
$$3.2 \text{ min} = t$$



$$900 = 160t + 200t$$

$$900 = 360t$$

$$2.5 \text{ hours} = t$$



$$3r = 2(r + 10)$$

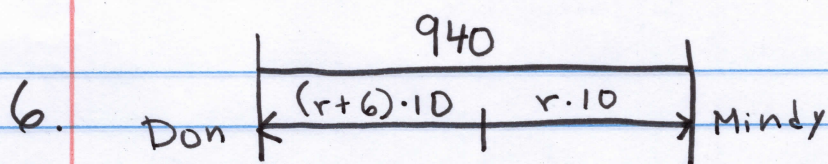
$$3r = 2r + 20$$

$$-2r \quad -2r$$

$r = 20$ mph. Lauren's speed

$r + 10 = 30$ mph. Richard's speed.

Distance = $(20 \text{ mph})(3 \text{ hours}) = 60 \text{ miles}$
between Arbuckle
and Bowton



$$940 = 10(r+6) + 10r$$

$$940 = 10r + 60 + 10r$$

$$940 = 20r + 60$$

$$\begin{array}{r} -60 \\ \hline \end{array}$$

$$\begin{array}{r} 880 \\ \hline 20 \end{array} = \begin{array}{r} 20r \\ \hline 20 \end{array}$$

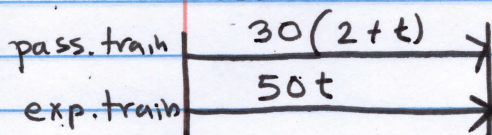
$$44 = r$$

Mindy's speed: 44 mph

Don's speed: $44+6 = 50$ mph.

7. Two Ways to Do This

Method 1:



$$30(2+t) = 50t$$

$$60 + 30t = 50t$$

$$\begin{array}{r} -30t \\ \hline \end{array} \quad \begin{array}{r} -30t \\ \hline \end{array}$$

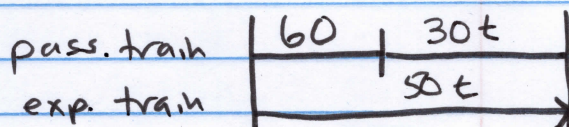
$$\begin{array}{r} 60 \\ \hline 20 \end{array} = \begin{array}{r} 20t \\ \hline 20 \end{array}$$

$$3 \text{ hours} = t$$

$$9 \text{ am} + 3 \text{ hours} = \boxed{12:00}$$

Method 2:

If the first train goes 30 mph for 2 hours, it will travel 60 miles before the second train starts.



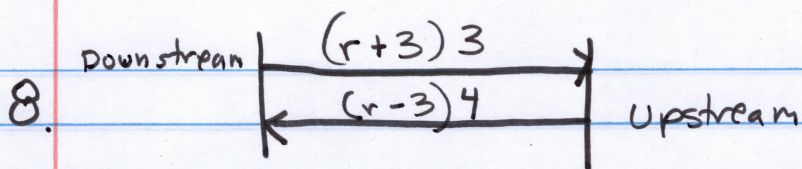
$$60 + 30t = 50t$$

$$\begin{array}{r} -30t \\ \hline \end{array} \quad \begin{array}{r} -30t \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \hline 20 \end{array} = \begin{array}{r} 20t \\ \hline 20 \end{array}$$

$$3 = t$$

$$9 \text{ am} + 3 \text{ hours} = \boxed{12:00}$$



$$3(r+3) = 4(r-3)$$

$$\begin{array}{r} 3r + 9 = 4r - 12 \\ -3r \quad -3r \end{array}$$

$$\begin{array}{r} 9 = r - 12 \\ +12 \quad +12 \end{array}$$

$$21 = r$$

Boat's speed = 21 mph

$$\text{Distance} = (r+3)3$$

$$= (21+3)3$$

$$= 24 \cdot 3$$

$$= 72 \text{ miles}$$