

$$\text{BOAT} = 18 \text{ km/h}$$

DOWN 20 KM

SAME TIME

UP 10 KM

RIVER SPEED?

$$D = R T$$

$$T = \frac{D}{R}$$

	D	R	T
UP	10	$18 - R$	$\frac{10}{18 - R}$
DOWN	20	$18 + R$	$\frac{20}{18 + R}$

$$(18 + R)(18 - R)$$

$$(18 + R)(18 - R)$$

$$\frac{10}{18 - R} = \frac{20}{18 + R}$$

$$180 + 10R = 360 - 20R$$

$$\frac{30R}{30} = \frac{180}{30}$$

$$R = 6 \text{ km/h RIVER SPEED}$$

$$\text{BOAT} = 18 \text{ km/h}$$

DOWN 20 KM

SAME TIME

UP 10 KM

RIVER SPEED?

$$D = R \cdot T$$

$$T = \frac{D}{R}$$

	D	R	T
UP	10	$18 - R$	$\frac{10}{18 - R}$
DOWN	20	$18 + R$	$\frac{20}{18 + R}$

$$(\cancel{18+R})(\cancel{18-R})$$

$$\frac{10}{\cancel{18-R}} = \frac{20}{\cancel{18+R}}$$

$$(\cancel{18+R})(\cancel{18-R})$$

$$180 + 10R = 360 - 20R$$

$$\frac{30R}{30} = \frac{180}{30}$$

$$R = 6 \text{ km/h RIVER SPEED}$$