



THE METHOD

$\text{Crosswind} = \text{wind speed} \times \sin(\text{angle})$

$\text{Headwind} = \text{wind speed} \times \cos(\text{angle})$

Angle = the difference between the wind direction and your runway heading (e.g. RWY 27 = 270°).

COMPONENT FACTORS

% OF WIND SPEED

ANGLE OFF RWY	HEADWIND	CROSSWIND
10°	98%	17%
20°	94%	34%
30°	87%	50%
40°	77%	64%
45°	71%	71%
60°	50%	87%
70°	34%	94%
90°	0%	100%

CLOCK RULE OF THUMB

- 15° off runway → crosswind $\approx \frac{1}{4}$ of the wind
- 30° off runway → crosswind $\approx \frac{1}{2}$ of the wind
- 45° off runway → crosswind $\approx \frac{3}{4}$ of the wind
- 60°+ off runway → crosswind $\approx$ **the full** wind

WORKED EXAMPLE

RWY 27 · wind 240° @ 20 kts · angle 30°

→ headwind $\approx$ **17 kts**, crosswind $\approx$ **10 kts**

Compare the crosswind to your aircraft's demonstrated crosswind limit before you commit.