

Name _____ Period _____
Trig Practice

For **Right** triangles ONLY!

$$A^2 + B^2 = C^2$$

$$\sin a = \frac{A}{C}$$

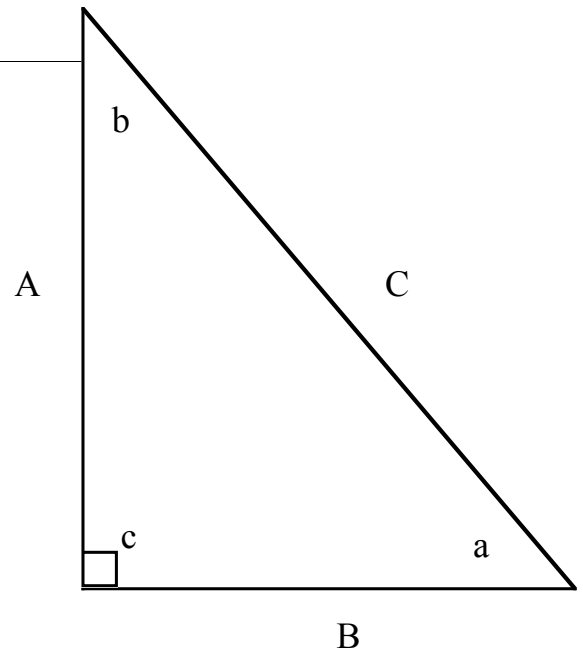
$$\sin b = \frac{B}{C}$$

$$\cos a = \frac{B}{C}$$

$$\cos b = \frac{A}{C}$$

$$\tan a = \frac{A}{B}$$

$$\tan b = \frac{B}{A}$$



Find the components of each vector. Be sure to **LABEL** your answers!

1. 75 m 20° N of E

70 m E, 26 m N

2. 175 mi/hr 62° N of W

82.1 mi/hr W, 155 mi/hr N

3. 737 m 40.0° S of E

565 m E, 474 m S

4. 881 m 37° N of W 704 m W, 530 m N
5. 8.0 m/s 85° E of S .70 m/s S, 7.97 m/s E
6. 83.6 ft/s² 30.0° E of N 41.8 ft/s² E, 72.4 ft/s²
7. 2.29 miles 59° S of E 1.18 mi E, 1.96 mi S
8. 36.3 m/s 66° W of N 33.2 m/s W, 14.8 m/s N
9. 5.69 km 38° S of W 4.48 km W, 3.50 km S
10. 264 cm 19° W of S 85.9 cm W, 250 cm S

Combine the vectors and describe the resultant.

11. 34 m N and 48 m E 59 m 35° N of E (or 55° E of N)

12. 398 m S and 182 m W 438 m 25° W of S (or 65° S of W)

13. 43.4 m/s S and 89.3 m/s E 99.3 m/s 64° E of S (or 26° S of E)

14. 1.93 m/s² N and 9.51 m/s² W 9.70 m/s² 79° W of N (or 11°N of W)

15. 920 km N and 404 km W 1.00 x 10³ km 66° N of W (or 24° W of N)

16. 45 m/s 30.0° N of W and 15 m/s 15° S of E 30.8 m/s 37° N of W (or 53° W of N)

17. 23 m 15° W of S and 47 m 38° N of W

43.5 m 8.9° N of W (or 81° W of N)

18. 3.2 m/s^2 47° W of S and 5.3 m/s^2 63° E of N

2.4 m/s^2 5° N of E (or 85° E of N)

19. 78 m 23° W of N and 60.3 m 15° N of E

92 m 72° N of E (or 18° E of N)

20. 3.3 m/s 39° S of W and 3.6 m/s 53° W of N

5.4 m/s 1° N of W (or 89° W of N)