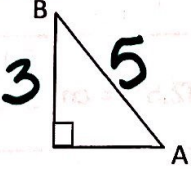
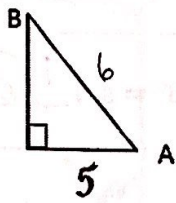
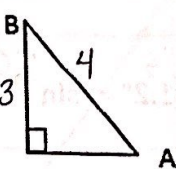
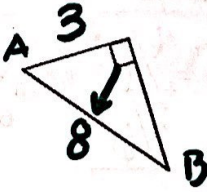
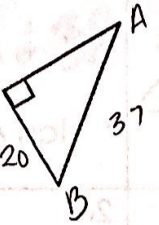
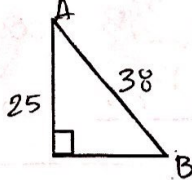
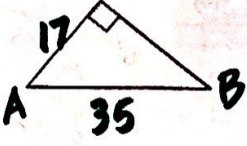
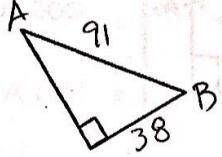
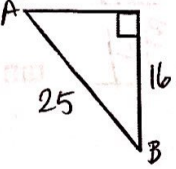
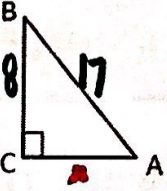
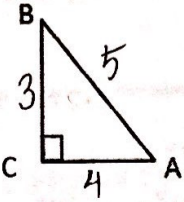
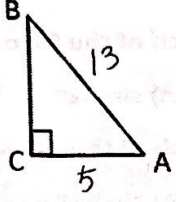


# Complimentary Angles

Name Angela Milani Date \_\_\_\_\_

Given that A and B are complementary angles:

Label each triangle side lengths using the ratios, and A and B if not already labeled

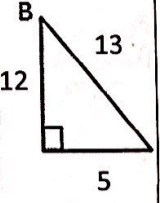
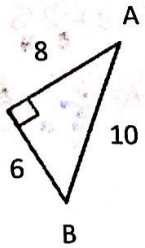
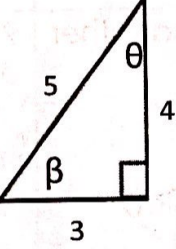
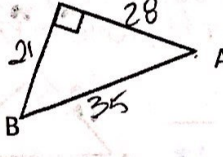
<p>1. <math>\sin A = \frac{3}{5}</math>  <math>\cos B = \frac{3}{5}</math></p> 	<p>2. <math>\cos A = \frac{5}{6}</math>  <math>\sin B = \frac{5}{6}</math></p> 	<p>3. <math>\sin A = \frac{3}{4}</math>  <math>\cos B = \frac{3}{4}</math></p> 
<p>4. <math>\sin B = \frac{3}{8}</math>  <math>\cos A = \frac{3}{8}</math></p> 	<p>5. <math>\sin A = \frac{20}{37}</math>  <math>\cos B = \frac{20}{37}</math></p> 	<p>6. <math>\sin B = \frac{25}{38}</math>, what other trig ratio = <math>\frac{25}{38}</math>?</p> <p><math>\cos A = \frac{25}{38}</math></p> 
<p>7. If <math>\cos A = \frac{17}{35}</math>, what other trig ratio = <math>\frac{17}{35}</math>?</p> <p><math>\sin B = \frac{17}{35}</math></p> 	<p>8. If <math>\sin A = \frac{38}{91}</math>, what other trig ratio = <math>\frac{38}{91}</math>?</p> <p><math>\cos B = \frac{38}{91}</math></p> 	<p>9. If <math>\cos B = \frac{16}{25}</math>, what other trig ratio = <math>\frac{16}{25}</math>?</p> <p><math>\sin A = \frac{16}{25}</math></p> 
<p>10. If <math>\sin A = \frac{8}{17}</math>, what other trig ratio = <math>\frac{8}{17}</math>?</p> <p><math>\cos B = \frac{8}{17}</math></p> <p><math>\overline{AC} = 15</math></p> <p><math>x^2 + 8^2 = 17^2</math></p> <p><math>\cos A = \frac{15}{17}</math></p> 	<p>11. If <math>\cos B = \frac{3}{5}</math>, what other trig ratio = <math>\frac{3}{5}</math>?</p> <p><math>\sin A = \frac{3}{5}</math></p> <p><math>\overline{AC} = 4</math></p> <p><math>3^2 + x^2 = 5^2</math></p> <p><math>\sin B = \frac{4}{5}</math></p> 	<p>12. If <math>\sin B = \frac{5}{13}</math>, what other trig ratio = <math>\frac{5}{13}</math>?</p> <p><math>\cos A = \frac{5}{13}</math></p> <p><math>\overline{AC} = 5</math></p> <p><math>\cos A = \frac{5}{13}</math></p> 
<p>13. If <math>\sin A = \frac{30}{34}</math>, what is <math>\cos B</math>? <math>\frac{30}{34}</math>          In your own words, explain why.</p>		

# Complimentary Angles

Find the missing angle.

14. $\sin 20^\circ = \cos \underline{70}^\circ$	15. $\sin 50^\circ = \cos \underline{40}^\circ$	16. $\cos 32^\circ = \sin \underline{58}^\circ$
17. $\sin 47.2^\circ = \cos \underline{42.8}^\circ$	18. $\cos 12.6^\circ = \sin \underline{77.4}^\circ$	19. $\sin 47^\circ = \cos \underline{43}^\circ$
20. $\cos 51.2^\circ = \sin \underline{38.8}^\circ$	21. $\cos 38^\circ = \sin \underline{52}^\circ$	22. $\sin 82.5^\circ = \cos \underline{7.5}^\circ$

Find all trig ratios for each right triangle.

<p>23.</p> $\sin A = \frac{12}{13}$ $\sin B = \frac{5}{13}$ $\cos A = \frac{5}{13}$ $\cos B = \frac{12}{13}$ $\tan A = \frac{12}{5}$ $\tan B = \frac{5}{12}$ 	<p>24.</p> $\sin A = \frac{6}{10}$ $\sin B = \frac{8}{10}$ $\cos A = \frac{8}{10}$ $\cos B = \frac{6}{10}$ $\tan A = \frac{6}{8}$ $\tan B = \frac{8}{6}$ 
<p>25.</p> $\sin \theta = \frac{3}{5}$ $\sin \beta = \frac{4}{5}$ $\cos \theta = \frac{4}{5}$ $\cos \beta = \frac{3}{5}$ $\tan \theta = \frac{3}{4}$ $\tan \beta = \frac{4}{3}$ 	<p>26.</p> $\sin A = \frac{21}{35}$ $\sin B = \frac{28}{35}$ $\cos A = \frac{28}{35}$ $\cos B = \frac{21}{35}$ $\tan A = \frac{21}{28}$ $\tan B = \frac{28}{21}$ 

1. Which of the following is equal to  $\cos 35^\circ$ ?

- A)  $\sin 35^\circ$     B)  $\cos 55^\circ$     C)  $\sin 55^\circ$     D)  $\cos 145^\circ$

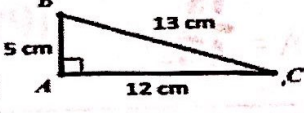
2. Which of the following is equal to  $\sin 8^\circ$ ?

- A)  $\sin 82^\circ$     B)  $\cos 8^\circ$     C)  $\cos 82^\circ$     D)  $\sin 98^\circ$

3. Which of the following statements is false?

- A)  $\sin 45^\circ = \cos 45^\circ$     B)  $\sin 30^\circ = \cos 30^\circ$     C)  $\cos 10^\circ = \sin 80^\circ$     D)  $\sin 0^\circ = \cos 90^\circ$

4. Given the ratio  $\frac{12}{13}$ , which of the following is NOT equal to this value?

- A)  $\sin \angle B = \frac{12}{13}$     B)  $\cos \angle C = \frac{12}{13}$     C)  $\frac{AC}{BC} = \frac{12}{13}$     D)  $\sin \angle C = \frac{5}{13}$
- 

5. If  $\cos \theta = \sin \beta$  then which of the following must be true?

- A)  $\theta + \beta = 180^\circ$     B)  $\theta - \beta = 90^\circ$     C)  $\beta = 90^\circ - \theta$     D)  $\beta - \theta = 90^\circ$

6. Solve the following.

- a)  $\sin 27^\circ = \cos \underline{63}^\circ$     b)  $\cos 55^\circ = \sin \underline{35}^\circ$     c)  $\sin 17.8^\circ = \cos \underline{72.2}^\circ$   
d)  $\cos 90^\circ = \sin \underline{0}^\circ$     e)  $\cos 45^\circ = \sin \underline{45}^\circ$     f)  $\sin 62\frac{2}{3}^\circ = \cos \underline{27\frac{1}{3}^\circ}$