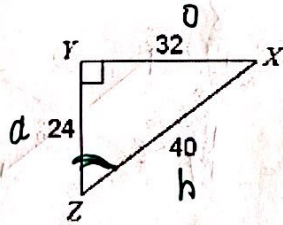


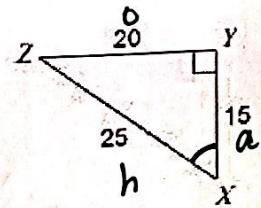
## Day 5 – Trig Ratios – Practice

Find each ratio and be sure to simplify, if possible.

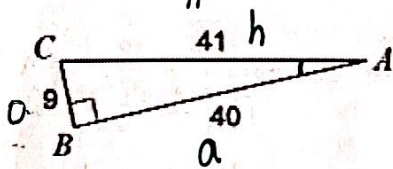
1.  $\tan Z = \frac{32}{24} = \frac{4}{3}$



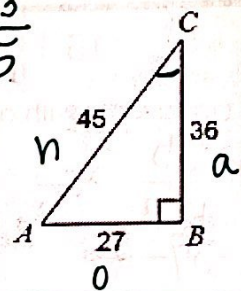
2.  $\sin X = \frac{20}{25} = \frac{4}{5}$



3.  $\cos A = \frac{40}{41}$

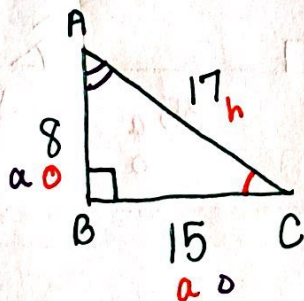


4.  $\sin C = \frac{27}{45} = \frac{3}{5}$



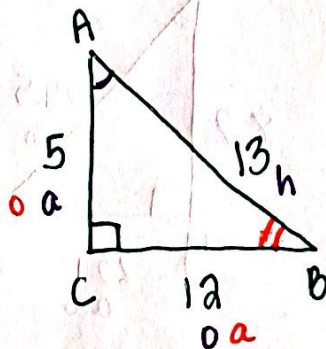
Draw  $\triangle ABC$  where  $\angle ABC = 90^\circ$ ,  $AB = 8$ ,  $BC = 15$ , and  $AC = 17$ .

- 5. What is  $\tan C$ ?  $\frac{8}{15}$
- 6. What is  $\sin A$ ?  $\frac{15}{17}$



Draw  $\triangle ABC$  where  $\angle ACB = 90^\circ$ ,  $AC = 5$ , and  $CB = 12$ .

- 7. What is the length of  $AB$ ? 13
- 8. What is  $\cos A$ ?  $\frac{5}{13}$
- 9. What is  $\tan B$ ?  $\frac{5}{12}$



$$5^2 + 12^2 = c^2$$

$$169 = c^2$$

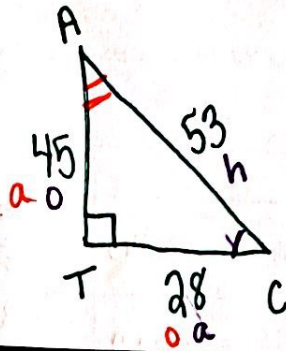
$$13 = c$$

Draw  $\triangle CAT$  where  $\angle ATC = 90^\circ$ ,  $CA = 53$ , and  $CT = 28$ .

10. What is the length of  $AT$ ?  $45$

11. What is  $\sin C$ ?  $\frac{45}{53}$

12. What is  $\tan A$ ?  $\frac{28}{45}$



$$28^2 + b^2 = 53^2$$

$$784 + b^2 = 2809$$

$$b^2 = 2025$$

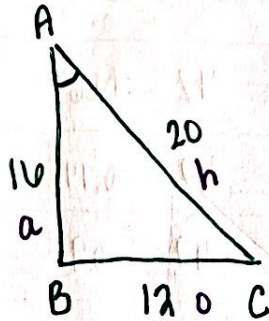
$$b = 45$$

Draw  $\triangle ABC$  where  $\angle B = 90^\circ$  and  $\sin A = \frac{12}{20}$ .

13. What is the length of  $AB$ ?  $16$

14. What is  $\tan A$ ?  $\frac{12}{16} = \frac{3}{4}$

15. What is  $\cos A$ ?  $\frac{16}{20} = \frac{4}{5}$



$$12^2 + b^2 = 20^2$$

$$144 + b^2 = 400$$

$$b^2 = 256$$

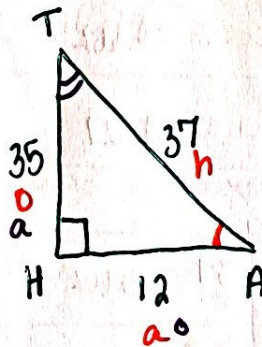
$$b = 16$$

Draw  $\triangle HAT$  where  $\angle H = 90^\circ$  and  $\tan T = \frac{12}{35}$ .

16. What is the length of  $AT$ ?  $37$

17. What is  $\sin A$ ?  $\frac{35}{37}$

18. What is  $\cos T$ ?  $\frac{35}{37}$



$$12^2 + 35^2 = c^2$$

$$1369 = c^2$$

$$37 = c$$