Name: _____ Date: _____ Row: _____ Period: _____ Assignment #: _____

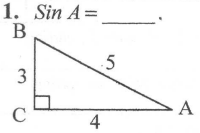
****YOU MUST SHOW WORK****

FACEing MATH™

Lesson 17: Sine, Cosine, and Tangent

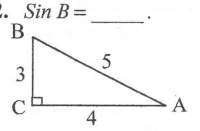
Directions: ***Solve each problem and use a pencil to DRAW the object that corresponds with your answer. SHOW YOUR STEPS!!!***

1. *Sin A* = _____.



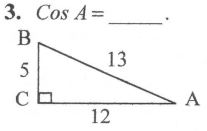
(a) If your answer is $\frac{3}{5}$ draw the following hair on the head.
(b) If your answer is $\frac{4}{5}$ draw the following hair on the head.

2. *Sin B* = _____.



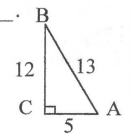
(a) If your answer is $\frac{4}{5}$ draw the following large eyes.
(b) If your answer is $\frac{3}{5}$ draw the following eyes.

3. *Cos A* = _____.



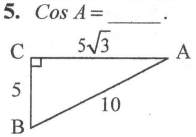
(a) If your answer is $\frac{5}{13}$ draw the following eyebrows.
(b) If your answer is $\frac{12}{13}$ draw the following eyebrows.

4. *Tan B* = _____.



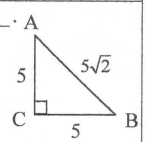
(a) If your answer is $\frac{12}{5}$ draw the following nose.
(b) If your answer is $\frac{5}{12}$ draw the following nose.

5. *Cos A* = _____.



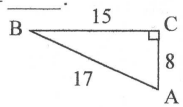
(a) If your answer is $\frac{1}{2}$ draw the following smile.
(b) If your answer is $\frac{\sqrt{3}}{2}$ draw the following smile.

6. *Sin B* = _____.



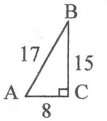
(a) If your answer is $\frac{\sqrt{2}}{2}$ draw the following ears.
(b) If your answer is $\frac{5}{\sqrt{2}}$ draw the following ears.

7. *Tan A* = _____.



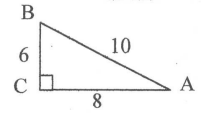
(a) If your answer is $\frac{15}{8}$ draw a circular earring in one ear.
(b) If your answer is $\frac{8}{15}$ draw a square earring in one ear.

8. *Tan B* = _____.



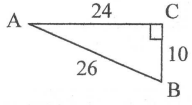
(a) If your answer is $\frac{8}{15}$ draw a band-aid on the face.
(b) If your answer is $\frac{15}{8}$ draw a band-aid on one arm.

9. *Sin A* = _____.



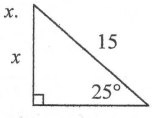
(a) If your answer is $\frac{4}{5}$ draw a scar on one arm.
(b) If your answer is $\frac{3}{5}$ draw a scar on the face.

10. *Sin B* = _____.



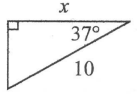
(a) If your answer is $\frac{12}{13}$ write "SKATERS RULE" on the shirt.
(b) If your answer is $\frac{5}{13}$ write "RADICAL" on the shirt.

11. Solve for x.



a) If $x = 13.6$ draw a skate rail in the background.
b) If $x = 6.3$ draw a skate ramp in the background.

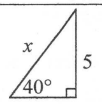
12. Solve for x.



(a) If $x = 6$ draw a sun in the background.
(b) If $x = 8$ draw a skateboard in the background.

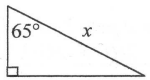
Directions: ***Solve each problem and COLOR the object that corresponds with your answer. SHOW YOUR STEPS!!!***

13. Solve for x.



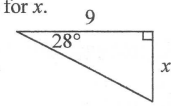
(a) If $x = 7.8$ color the hair purple, green, and yellow.
(b) If $x = 5.2$ color the hair blue and orange.

14. Solve for x.



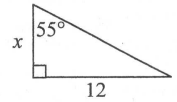
(a) If $x = 7.7$ color the band-aid brown.
(b) If $x = 16.6$ color the band-aid pink.

15. Solve for x.



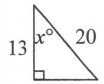
(a) If $x = 16.9$ color the earring red.
(b) If $x = 4.8$ color the earring purple.

16. Solve for x.



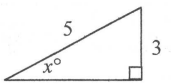
(a) If $x = 8.4$ color the eyebrows brown.
(b) If $x = 17.1$ color the eyebrows yellow.

17. Solve for x.



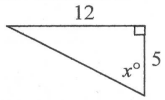
(a) If $x = 40.5$ color the ears, face, nose, neck, and arms brown.
(b) If $x = 49.5$ color the ears, face, nose, neck, and arms apricot.

18. Solve for x.



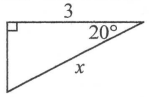
(a) If $x = 36.9$ outline the ears in black.
(b) If $x = 53.1$ outline the ears in blue.

19. Solve for x.



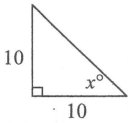
(a) If $x = 22.6$ outline the eyes in green.
(b) If $x = 67.4$ outline the eyes in black.

20. Solve for x.



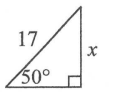
(a) If $x = 2.8$ outline the nose in orange.
(b) If $x = 3.2$ outline the nose in black.

21. Solve for x.



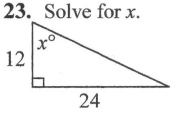
(a) If $x = 60$ outline the mouth in red.
(b) If $x = 45$ outline the mouth in black.

22. Solve for x.



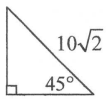
(a) If $x = 22.2$ outline the scar in red.
(b) If $x = 13$ outline the scar in black.

23. Solve for x.



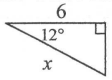
(a) If $x = 63.4$ color the shirt green.
(b) If $x = 26.6$ color the shirt yellow.

24. Solve for x.



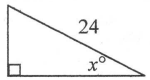
(a) If $x = 10$ outline the letters on the shirt in the black.
(b) If $x = 20$ outline the letters on the shirt in orange.

25. Solve for x.



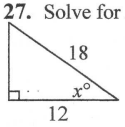
(a) If $x = 5.1$ color the skate ramp/rail orange.
(b) If $x = 6.1$ color the skate ramp/rail brown.

26. Solve for x.



(a) If $x = 41.8$ color the other object in the background using MANY colors.
(b) If $x = 48.2$ color the other object in the background using ONE color.

27. Solve for x.



(a) If $x = 41.8$ color the background yellow.
(b) If $x = 48.2$ color the background blue.

Artistic Tip: **When you are done coloring, it looks nice to outline the major features using a black crayon or marker.**