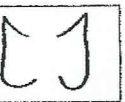
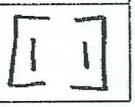
FACEing MATH® Name: _____

Lesson 14: Ratios, Proportions & Percent Change

Directions: Solve each problem. SHOW YOUR WORK!!!

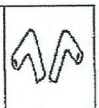
1. Solve for x

$$\frac{x}{6} = \frac{45}{54}$$

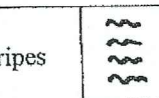
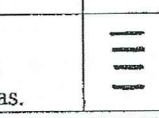
(a) If your answer is $x = 9$ draw the following large ears.	
(b) If your answer is $x = 5$ draw the following large ears.	

2. Solve for x

$$\frac{x}{60} = \frac{10}{12}$$

(a) If your answer is $x = 50$ draw the following antennas on the head.	
(b) If your answer is $x = 5$ draw the following antennas on the head.	

3. Find the unit rate. Calvin scored 36 points in 3 games.

(a) If your answer is 108 pts draw wavy stripes on the antennas.	
(b) If your answer is _____ draw straight stripes on the antennas.	

4. Find the unit rate
A 6oz. jar of jalapenos costs $2.34.

(a) If your answer is $.39 per oz. draw three eyes.	
(b) If your answer is $14.04 draw four eyes.	

5. The scale on a map is 1 in = 500 miles. How many inches apart are cities that have 3000 miles between them?

(a) If your answer is 3 in draw straight eyebrows above each eye.	
(b) If your answer is 6 in. draw zigzagging eyebrows above each eye.	

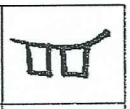
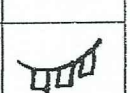
6. The scale on a map is 1 cm = 20 miles If two airports are 4cm apart on the map, what is the distance between the airports?

(a) If your answer is 80 mi draw a semicircle for the nose.	
(b) If your answer is 5 mi draw a rectangle for the nose.	

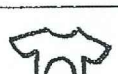
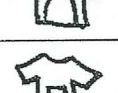
7. What is 25% of 40?

(a) If your answer is 10 draw a FULL smile.	
(b) If your answer is 25 draw a HALF smile.	

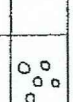
8. What is 15% of 8?

(a) If your answer is 12 draw two teeth coming from the mouth.	
(b) If your answer is 1.2 draw three teeth coming from the mouth.	

9. What is 3% of 55?

(a) If your answer is 16.5 draw a large semicircle on the shirt.	
(b) If your answer is 1.65 draw a large rectangle on the shirt.	

10. What % of 25 is 15?

(a) If your answer is 60% draw tiny triangles all over the ears, neck, and arms.	
(b) If your answer is 40% draw tiny circles all over the ears, neck, and arms.	

11. What % of 36 is 9?

(a) If your answer is 27% draw a spaceship in the background.	
(b) If your answer is 25% draw a shooting star in the background.	

12. What is 140% of 20?

(a) If your answer is 28 draw a planet WITHOUT a ring around it.	
(b) If your answer is 8 draw a planet WITH a ring around it.	

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

13. The Game Store buys video games for $30 and sells them for $50. What is the percent markup?

(a) If your answer is 66.6% color the shapes on the ears, neck, and arms pink.
(b) If your answer is 40% color the shapes on the ears, neck, and arms green.

14. Jessie bought a t-shirt for $6. It was originally $8. What % discount did she receive?

(a) If your answer is 25% color the rest of the ears, neck, and arms purple.
(b) If your answer is 20% color the rest of the ears, neck, and arms brown.

15. 20% of X is 80. What is X?

(a) If your answer is X = 16 outline the mouth in red.
(b) If your answer is X = 400 outline the mouth in black.

16. 5% of X is 15. What is X?

(a) If your answer is X = 0.75 color the teeth yellow.
(b) If your answer is X = 300 leave the teeth white.

17. Dinner cost $45.50. You left a 20% tip. How much money did you spend?

(a) If your answer is $9.10 outline the teeth in black.
(b) If your answer is $54.60 outline the teeth in brown.

18. A new skateboard cost $150. You have a 30% off coupon. How much money did you save?

(a) If your answer is $105 color the nose green.
(b) If your answer is $45 color the nose blue.

19. You bought donuts for $0.60 each. TO make a profit you mark them up 25%. How much do you charge?

(a) If your answer is $0.75 color all the eyes DIFFERENT colors.
(b) If your answer is $0.185 color all the eyes the SAME color.

20. A realtor makes 3% commission. What is the commission on a $200,000 house?

(a) If your answer is $6000 outline the eyebrows in orange.
(b) If your answer is $2000 outline the eyebrows in black.

21. Which item is cheaper?

Basketball	Baseball Bat
$18.00	$30.00
20% off	30% off

(a) If your answer is Baseball Bat color the face yellow.
(b) If your answer is Basketball color the face purple.

22. X is 145% of 20. What is X?

(a) If your answer is 13.8 color the shape on the shirt red.
(b) If your answer is 29 color the shape on the shirt brown.

23. What % of 40 is 58?

(a) If your answer is 145% color the rest of the shirt yellow.
(b) If your answer is 69% color the rest of the shirt blue.

24. 54 is 120% of what number?

(a) If your answer is 64.8 color the stripes on the antennas THREE different colors.
(b) If your answer is 45 color the stripes on the antennas TWO different colors.

25. How much is 7.2% of 150?

(a) If your answer is 10.8 color the planet blue and green.
(b) If your answer is 108 color the planet red and orange.

26. 105 is 42% of what number?

(a) If your answer is 44.1 color the other object in the background MANY colors.
(b) If your answer is 250 color the other object in the background ONE color.

27. You have a $10 off coupon for pizza. If you use it to buy a $18.50 pizza, what % off did you get?

(a) If your answer is 46% color the background gray.
(b) If your answer is 54% 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.**

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