## Lesson 24 Front, Side, Top, and Back Views of 3D models. Logic.

1
Use rectangles to solve the equations:
$x: 3=9$


$35: Y=5$

$W \times 4=32$


2
Solve the problems.
A. Every minute a faucet puts 5 liters of water into a bath tub. Hov many liters of water will be in the tub after 7 minutes?

B. Every minute a faucet puts 3 liters of water into a bath tub. How many liters of water will be in the tub after 6 minutes?

C. Every minute a faucet puts 4 liters of water into a bath tub. How long will it take to fill up a 20 L bath?
D. Every minute a faucet puts 5 liters of water into a bath tub. How long will it take to fill up a 35 L bath?

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3 There are $\boldsymbol{m}$ liters of water in the bucket and $\boldsymbol{n}$ liters in the jar. Foxy Tail poured $\boldsymbol{c}$ liters out of the bucket and $\boldsymbol{d}$ liters out of the jar. What do the expressions mean?

$m+n$ $\qquad$
$c+d$ $\qquad$
$m-c$ $\qquad$
$m-n$ $\qquad$
$d-c$ $\qquad$
$n-d$ $\qquad$

4
A. To prepare the house for Grand-Ma visit, Little Joe has picked a bunch of tulips from the yard to put a few vases with flowers around the house. He has picked twelve yellow tulips and eight red ones and has put nine flowers in a vase for the living room. Does the vase have to include red tulips? What about yellow ones?
B. Mice Brothers are taking part in a soccer championship. They played nine matches in one week. Was there a day when they took part in two or three matches?


5 Front, Side, Top, and Back Views of 3D models.
How to draw 3D shapes? What do you see if you look at a figure from the sides, front, and top?


Front

| Front View | Top View | Right Side View | Left Side View | Back View |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

Look at the front, right side, left side, top and back view drawings. Match each one with a 3D object. Circle the matching 3D object.

| Front View |  | Top View | Right Side View |
| :--- | :--- | :--- | :---: |
| $\square$ |  |  | $\square$ |
| $\square$ | $\square$ | $\square$ | $\square$ |


| Top View |  |  | Right Side View | Left Side View |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

Look at these 3D objects. Draw some of the 2D viewpoints (from the front, right side, left side, top and back).

|  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Top View | Right Side View |  |  |  |  |  |  |
| Front View |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |


a. From the chest, Little Joy and Foxy Tail picked up 2 hats and put them on without looking. Can the brothers say which hat they are wearing just by looking at each other?

b. Now the guys picked 3 hats (2 red and 1 blue) and put them ones again without looking at their hats. Just be looking at each other, can they say which hat they are wearing?

What FT will answer if LJ will ask about a color of the hat he is wearing?

Can FT tell now which hat he is wearing?

How about the case if the Sweet Beauty will join them? So now there are 3 mice and three hats (2 red and 1 blue). Can they say who wears which hat?

c. Now Pretty Betty and Kind Rosie decided to play too and asked Little Joy to teach them. They picked 4 hats (2 red and 2 blue). Following the same rules (no picking on their own hat and just looking or asking) can they figure out the colors of their hats?
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d. What if there are 3 red and 1 blue hats?
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