NTI

7th Grade Day 10

ITU

Telecommunication Standardization Sector

(10/92)

7th Grade INT Day #10

Expressing Equations

Name:

Solve each problem.

1) At a carnival it costs $91.59 for 71 tickets. Write an equation that can be used to express the relationship between the total cost (t) and the number of tickets(n) you buy.

$\frac{91.59}{71} = 1.29$

2) Using 26 boxes of nails a carpenter was able to finish 234.00 bird houses. Write an equation that can be used to express the relationship between the total number of birdhouses completed(t) and the boxes of nails(b) used.

3) The combined weight of 22 concrete blocks is 332.86 kilograms. Write an equation that can be used to express the relationship between the total weight(t) and the number of concrete blocks(b) you have.

4) A chef bought 16 bags of oranges at the supermarket and it cost her $47.52. Write an equation that can be used to express the relationship between the total cost(t) and the number of bags of oranges(b) purchased.

5) It cost $448.00 for 35 pounds of beef jerky. Write an equation that can be used to express the relationship between the total cost(t) and the pounds of beef jerky(p) purchased.

6) Vanessa traveled 55.68 kilometers in 64 minutes. Write an equation that can be used to express the relationship between the total kilometers traveled(t) and the minutes(m) it took.

7) A school had to buy 12 new science books and it ended up costing $428.40 total. Write an equation that can be used to express the relationship between the total cost(t) and the number of books(b) purchased.

8) A company used 378.00 lemons to make 42 bottles of lemonade. Write an equation that can be used to express the relationship between the total number of lemons needed (t) for each bottle of lemonade (b).

9) A phone store earned $48.62 after they sold 17 phone cases. Write an equation that can be used to express the relationship between the total money earned (t) and the number of cases(c) sold.

10) A school fundraiser sold 26 candy bars and earned 66.56 dollars total. Write an equation that can be used to express the relationship between the total amount earned(t) and each candy bar sold(b).

Answers

1. $t = 1.29n$
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Name:

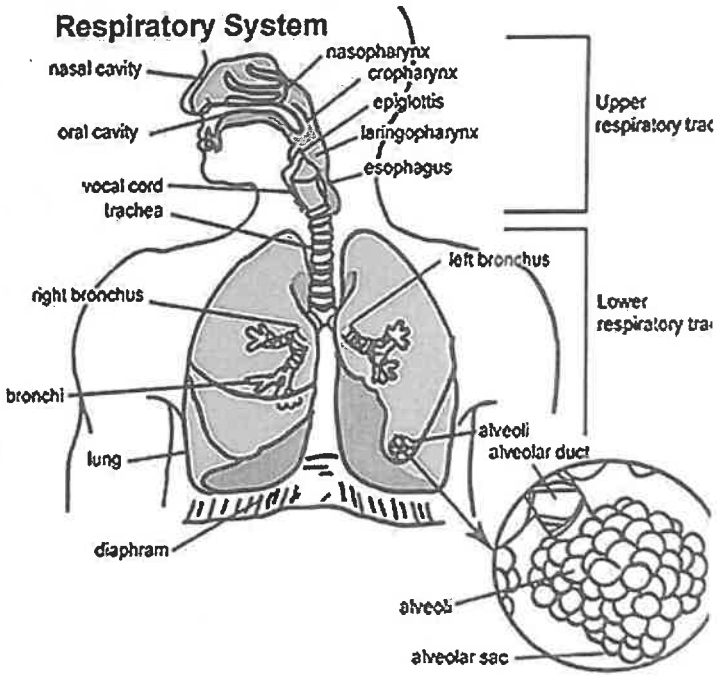
Lesson 24 7th - NTI Day 10

Circulatory and Respiratory Systems

Can you imagine a highway system inside your body? Well, that's exactly what the circulatory and respiratory systems are! They work hand-in-hand to deliver life's essential, oxygen, along with other important nutrients, to every cell in our bodies.

Picture the **circulatory system** as an intricate network of roads, made up of the heart, blood, and various types of blood vessels like arteries, veins, and tiny capillaries. On the other hand, the **respiratory system** can be seen as the oxygen supply unit that refreshes the body with clean air from each breath you take, and removes carbon dioxide waste. This system consists of the lungs, nose, trachea or windpipe, bronchial tubes, and alveoli or tiny air sacs.

Every time you inhale air through your nose or mouth, it goes on a journey down your **trachea** (windpipe) and into two **bronchial tubes**. Like a tree, each bronchial tube spreads into one of your two lungs, further branching out into smaller tubes, known as **bronchioles**. At the end of this journey, the air reaches the **alveoli**, which are millions of tiny balloon-like sacs. Each alveolus is surrounded by tiny blood vessels or **capillaries**, which is where the oxygen enters the blood cells and the carbon dioxide leaves when air is exhaled.



The circulatory system, like a reliable delivery service, carries this oxygen-rich blood to every single cell in your body. Your heart, which is about the size of your fist, acts as the engine, pumping blood through your blood vessels. Did you know your heart beats about 70 times a minute? Just imagine how many times it beats in a day, a year, or a lifetime!

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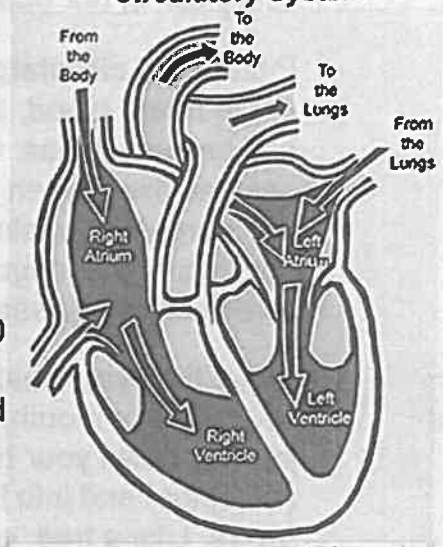
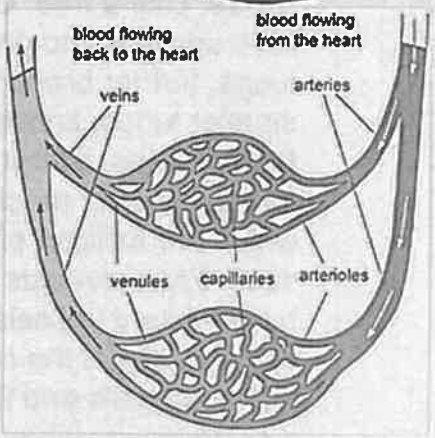
Inside the heart, you'll find four **chambers**: the right atrium, right ventricle, left atrium, and left ventricle. These chambers are separated by very strong valves. The **right atrium** collects oxygen-poor blood from the veins and sends it to the **right ventricle**, which then sends it to the lungs to get a fresh batch of oxygen. The newly oxygenated blood returns from the lungs to the **left atrium**, which pumps it into the **left ventricle**. From there, it gets pumped into the arteries, which are like the highways that deliver oxygen and nutrients to the entire body. This rhythmic pumping is what we know as our heartbeat, which can be both heard and felt!

The **arteries** and **veins** branch into even smaller vessels called capillaries. The capillary walls are so thin that oxygen, nutrients, and waste can easily pass through them to the body cells. More than half of your blood is made of a yellowish liquid called **plasma**, which is 90% water and holds proteins, vitamins, and minerals. The rest is a mix of red blood cells, white blood cells, and platelets. Just one drop of blood has about 5 million red cells, 8,000 white cells, and 250,000 platelets. Red blood cells, made in your bone marrow, contain a protein called hemoglobin that turns the blood bright red when oxygen is present. White blood cells serve as valiant defenders against harmful invaders, and platelets create a protective scab with protein threads known as fibrin whenever we get a cut or bruise. Our bodies truly are amazing!

Circulatory System





END OF TEXT

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Circulatory and Respiratory Systems

1. What are the circulatory and respiratory systems similar to in our body?
   - **A.** A city's bus network
   - **B.** The roots of a tree
   - **C.** A highway system
   - **D.** The branches of a tree

2. What is the role of the respiratory system?
   - **A.** To pump blood
   - **B.** To deliver nutrients to cells
   - **C.** To bring in oxygen and release carbon dioxide
   - **D.** To fight against disease

3. What happens in the alveoli?
   - **A.** The blood becomes oxygen-rich and carbon dioxide is removed
   - **B.** The blood is pumped to the body
   - **C.** Blood is produced
   - **D.** The blood loses its oxygen

4. What is the function of the heart in the circulatory system?
   - **A.** To store oxygen
   - **B.** To produce blood
   - **C.** To pump blood throughout the body
   - **D.** To filter out carbon dioxide

5. How many times does the heart beat per minute, on average?
   - **A.** 100 times
   - **B.** 50 times
   - **C.** 70 times
   - **D.** 80 times

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Circulatory and Respiratory Systems

6. Which part of the heart receives oxygen-poor blood?
   - **A.** Left atrium
   - **B.** Right atrium
   - **C.** Left ventricle
   - **D.** Right ventricle

7. What are capillaries?
   - **A.** Large blood vessels that deliver oxygen
   - **B.** Chambers in the heart
   - **C.** Tiny blood vessels where oxygen and nutrients pass to cells
   - **D.** Part of the respiratory system that filters air

8. What is plasma?
   - **A.** A type of white blood cell
   - **B.** A protein that makes blood red
   - **C.** A yellowish fluid that is 90% water and holds proteins, vitamins, and minerals
   - **D.** A part of the heart

9. What happens when we get a cut or bruise?
   - **A.** White blood cells fight off invaders
   - **B.** Red blood cells produce hemoglobin
   - **C.** Platelets create a scab with protein threads called fibrin
   - **D.** The heart rate increases

10. What are bronchioles?
   - **A.** Part of the heart
   - **B.** Small branches of bronchial tubes in the lungs
   - **C.** Small blood vessels
   - **D.** Part of the nose and mouth

Lesson #10

The Moment You've Been Waiting For

I am going into Society, through the kindly aid of our friend here, who's taking such a lot of trouble on my account, and you'll find I've got all the qualities to endear me to people who entertain! So now that's all settled, and if you don't mind—I'm an old-fashioned fellow—don't want to turn you out, but—"

"Remember, you'll have to do your proper share of the fighting, dragon!" said Saint George, as he took the hint and rose to go. "I mean ramping, and breathing fire, and so on!"

"I can *ramp* all right," replied the dragon, confidently. "As to breathing fire, it's surprising how easily one gets out of practice, but I'll do the best I can. Good-night!"

They had descended the hill and were almost back in the village again, when Saint George stopped short, "*Knew* I had forgotten something," he said. "There ought to be a Princess, terror-stricken and chained to a rock, and all that sort of thing. Boy, can't you arrange a Princess?"

The Boy was in the middle of a tremendous yawn.

"I'm tired to death," he wailed, "and I *can't* arrange a Princess, or anything more, at this time of night. And my mother's waiting up, so *do* stop asking me to arrange more things till tomorrow!"

Next morning, the people began streaming up to the Downs at quite an early hour, in their Sunday clothes and carrying baskets, everyone intent on securing good places for the combat. Places were chosen, with a view *and* a speedy retreat in case of emergency. The front rank was mostly composed of boys who had escaped from parental control and now sprawled about on the grass, ignoring of the threats and warnings discharged at them by their anxious mothers behind.

The Boy had secured a good front place, well up towards the cave, and was feeling anxious. Could the dragon be depended upon? He might change his mind and proclaim the whole performance rot, or seeing the affair had been so hastily planned, without even a rehearsal, he might be too nervous to show up. The Boy squinted at the cave but saw no sign of life or occupation. Could the dragon have made a moonlight flitting?

The Downs were now thick with sightseers, and presently a sound of cheering and waving of handkerchiefs told that something was visible to them. The Boy, far up towards the dragon-end of the line, could not yet see. A minute more and Saint George's red plumes topped the hill. Very gallant and beautiful he looked, on his tall warhorse, his golden armor gleaming in the sun and his great spear held tall with a white pennon, crimson-crossed, fluttering at its point. He drew rein and remained motionless. The lines of spectators began to give back a little, nervously.

The Boy, growing impatient, fidgeted where he sat.

"Now, dragon!" he whispered.

RL.7.1 1. According to the dragon, what will make him acceptable in Society? Underline your answer in the text.

RL.7.4 2. Choose the correct definition based on how the word is used in the text.

ramp	run in circles	slope or incline
secure	claim for oneself	lock up
rot	nonsense; foolishness	decay
occupation	job; career	being lived in

RL.7.4 3. Match each word with its clue.

_____ endear	A) showy; finely dressed
_____ proclaim	B) pennant; banner
_____ hastily	C) cause one to be liked
_____ gallant	D) announce officially
_____ pennon	E) hurriedly

L.7.4 4. At the cave, Saint George "drew rein and remained motionless."

From context clues, you can tell that this means he _____.

A) filled a glass of water from the stream
B) brought his horse to a stop
C) cast a spell
D) said a prayer

RL.7.3 5. Sequence the events. Number from 1–7.

_____ The dragon promises to ramp and breathe fire to the best of his ability.

_____ The townspeople begin to claim the best seats up on the Downs.

_____ The Boy mentally encourages the dragon to appear.

_____ The dragon signals to his guests that he'd like them to leave his cave.

_____ The Boy fears the dragon will be a no-show.

_____ Saint George appears and wows the awaiting crowd.

_____ The Boy refuses to provide a terror-stricken princess.

RL.7.1 6. Why does the boy say he can't arrange to have a princess chained to a rock?

A) It is late in the evening.
B) His mother is waiting for him.
C) He is too tired to do anything more.
D) all of these