



Integument structure and function

Structure and function of integument in vertebrates. Structure function and derivatives of integument structure and function ppt. Real anatomy the integument structure and function. Structure function and derivatives of integument structure and function ppt. Real anatomy the integument structure and function. Structure function and derivatives of integument structure and function. Structure function and derivatives of integument structure and function. Structure function and derivatives of integument structure and function. Structure function and disorders of the integument quizlet.

The skin is composed of two mutually dependent layers that are distinguished based on their structure and location. These layers - the epidermis and sweating glansy. Below the dermis is hypoderm (subcutis). It is mainly composed of adipose tissue. The more superficial layer, the epidermis, is composed of stratified squamous epitanic that are queratinized in the outermost surface, melanocytes, immune cells (langerhans modulating immune response) and sensory receptors (CA © Merkel squids that detect light touch). The function of the epidermis layer is $\hat{a} \notin \ddagger$ Protection. Ceratinocytes and immune cells help protect the skin. The dermis is below the epidermis and is composed of two layers of connective tissue: a loose layer (papillary) and an irregular layer (reticular). Both layers of the dermis contain components of connective tissue (colong, elastin, fibroblasts), beings of blood vessels, sensory and lymphatic receptors. The dermis is a "functional" layer. The dermis is connective tissue that can stretch and retract because of the strong and electrical extracellular matrix. The dermis also contains nerves. Below these two layers is hypodermed, composed of loose connective tissue (adipose and areolar). Hypodania is the layer of $\tilde{A} \in \mathbb{T}$ ¬ "Conection $\tilde{A} \in \mathbb{T}$ ¬ "Conection $\tilde{A} \in \mathbb{T}$ ¬ "Conective tissue (adipose and areolar). and dermis) to the agriculture and muscles of the body. This layer contains adipose tissue as well as blood vessels, nerves and immunological cells. Identifying the anatomy of the unprecedented system and use correct abbrviations identify the mothers specialties associated with the inequality system Explore common diseases, disturbances and procedures related to the unprecedented system, click Prefixes, combining forms and suffixes to reveal a word pieces list to memorize for the inequality system. INTRODUCTION TO INGUMARY SYSTEM The inequality and suffixes to reveal a word pieces list to memorize for the inequality system. system refers to skin and its accessory structures. In the adult human body, the skin represents about 16% of body weight and covers a 1.5 to 2 m2 area. In fact, the skin structures and needs daily care and protection to keep your health. Media 6.1. The ineguementary system, part 1 Å ¢ â € "Deep Skin: Accident Course A & P # 6 [Video]. Copyright 2015 by the CALCHCOURSE. The skin and its accessory structures compose the ineguementary system, which are kept for underlying structures by connective tissue. The deepest layer of the skin is fine. M has innermumes sensory and nervous fibers, ensuring the communication of the congratulations. The skin is composed of two main layers: the below the dermis is the figure 6.1 layers of skin. from Betts, et al., 2013. Licensed under DC by 4.0. [Description of the image.] In the diagram above, find the two layers of the skin; epidermis and dermis. The literal distribution for hypoderm is below the dermis. In the diagram Above, where can you locate it? Can you find a pylous folk, hair root and hair shaft? Continue reading to find out what the candidate's muscle does You're scared. $\tilde{A} \notin \hat{a} \notin "\hat{a} \notin " \hat{a} \# \hat{a} \#$ "Epidermis is composed of keratinized and stratified scaly and stratified. It is made of four or five layers of epithelial cells depending on your In the body. This is. The thin skin has four layers of skills. Of superficial depth, these layers are, Stratum Spinosum, gratum granulosum and crane stratum. Most of the skin can be classified as thin skin. Thick skin is found only in the palms of hands and soles of the feet. It has a fifth layer, called Lucidum, located between Stratum Corneum and O granulosum (see Figure 6.2). Figure 6.2 Thin skin versus thick skin. These slides show cross-sections of the epidermis and dermis of thin and (b) thick skin. epithelial layer of the thick skin. Of the top, LM £ 40, LM ÅfÅ³- 40. (Micrographs provided by the Regents of the University of Michigan Members - 2012). Of Betts, et al., 2013. Licensed under CC by 4.0. [Description of the image.] The cells in all layers except the stratum basal. Keratin is an intracellular fibrous protein that gives hair, nails and skin its hardness and resistant properties to water. The keratinocytics in the web stratum are killed and regularly remove, being replaced by cells from the deepest layers (see Figure 6.3). Figure 6.3 epidermis is the epitém composed of several layers of cells. The basal layer consists of cucoveridal cells, while the outer layers are squamous, quaratinized cells, so that the entire epithet is often described as being a keratinized stratified nerves and other structures, such as hair follicles and sweat glans. The dermis is made of two layers (papillary layer and reticular layer) of the connective tissue that compose an interconnected mesh of elastin and fiber colators, produced by fibroblasts (see Figure 6.4). Figure 6.4 layers of the dermis. This stained slide shows the two components of the dermis - the papillary layer and the reticular layer. Both are made of connective tissue with collation fibers that extend from one to the epidermis belong to the papillary layer, while the dense fiber bundles below belong to the reticular layer. LM Ãf- 10. (crédo: modification of work by à â € € œ kilbadà ¢ € / wikimedia commons). Of Betts, et al., 2013. Licensed under CC by 4.0. [Image description.] The papillary layer is made of loose areolar connecting tissue, which means that the collation fibers and elastin of that layer form a loose mesh. This superficial layer of dermis projects in the bassoale stratum of the epidermis to form finger-like dermic papillary layer are fibroblasts, a small number and an abundance of small blood vessels. In addition, the papillary layer are fibroblasts, a small number and an abundance of small blood vessels. underlying the papillary layer is the thicker reticular layer, composed of dense and irregular connective tissue. This layer is well and has a rich sensory and nervous supply. The reticular layer appears due to a tight fiber mesque. Elastine fibers provide some skin elasticity, allowing movement. The collation fibers provide structure and resistance to the trace, with necklen wires that extend both the papillary layer and hypoderm. In addition, the collation connects the water to maintain the skin turgor, introducing the collation and retin-to creams help restore the skin turgor, introducing the collation and retin-to creams help restore the skin turgor. skin to the underlying bone and muscles. It is not strictly a part of the skin, although the border between it and can be difficult to distinguish. Hypoderme consists of connective tissue and well vascularized fabric, loose and areolar, which functions as a fat storage mode and provides insulation and damping for the integument. Practice labeling the skin layers. Skin structures and accessories carry out a variety of essential functions, such as protecting the body of by microorganisms, chemicals and other other factors; preventing dehydration; acting as sensory management; modulating body temperature and electrical equilibrium; And synthesizing vitamin D. The underlying hypodania has important papers in the storage of fats, forming an â € en Aµg structures and providing isolation of cold temperatures. Skin Protective barrier against loss of water and also is the first line of defense against abrasive activity, such as gran, micros or harmful chemical products. The excreted sweat of sweat greathers from colonizing the surface of the skin generating demicidine, which has antibiotic properties. Sensory Function The skin acts as a sense of meaning because the epidermis, dermis and hypoderma contain specialized sensory nerve structures that detect the touch, surface temperature and pain. These receptors are more concentrated in the tips of the fingers, which are more sensitive to the touch, especially what responds to the vibration. Merkel cells, views scattered at Stratum Basale, also are touch receivers. In addition to these specialized receptors, there are sensory nerves connected to each hairstyle, pain and temperature receptors scattered throughout the skin, and the motorized nerves inherend the pili-pil's muscles and gluces. This rich innervation helps us feel our environment and react accordingly, the thermoregulation The unprecedented system helps regulate body temperature through your tight association with the system Nervous sympathetic. The sympathetic nervous system is continuously monitoring body temperature and initiating appropriate motor answers. When the body becomes warm sweat glames, accessories for the skin, secrete water, salt and other substances to cool the body. ml of sweat are secreted per day. If the body becomes excessively hot due to high temperatures, vigorous activity or a combination of the two, the sweating glands will be stimulated by the sympathetic nervous system to produce large amounts of sweat. When the sweat evaporates the surface of the skin, the body is cooled as the heat of the body is dissipated. In addition to sweating, arterioles in the dermis dilato, so that the excess heat transported by the blood can dissipate through the skin and the surrounding environment (Figure 2B). This explains the vermelid of the skin and the surrounding environment (Figure 2B). loss, particularly at the ends of the dips and tip of the nose. This reduced circulation can result in the skin temperature falls as a result, the loss of passive heat is avoided, and internal agriculture and structures remain heated. If the skin temperature falls as a result, the loss of passive heat is avoided, and internal agriculture and structures remain heated. below freezing), body heat preserves can result. Figure 6.5 thermoregulation. During strenuous physical activities, such as skiing or running (C), the dermic blood vessels dilate and sweat secretion increases (b). These mechanisms prevent overheating body. In contrast, the dermic blood vessels are contracted to minimize heat loss in response to low temperatures (B). (Credit A: Å ¢ â € ‡ ‡ "TisilÅ ¢ € / flickr; Crédo C: Ralph daily). Of Betts, et al., 2013. Licensed under CC by 4.0. [Description of the image.] Can you describe the thermoregulation process between the inequality system and the sympathetic system? When the body temperature is too hot. When body temperature is very cold. The epidemic layer of human skin synthesizes vitamin D when exposed to UV radiation. In the presence of sunlight, a form of vitamin D3 called colecalciferol is synthesized from a steroid cholesterol derivative on the skin. The cholecalciferol is synthesized from a steroid cholesterol derivative on the skin. Vitamin D is essential for normal absorption of calcium and fans, which are required for healthy bones. The absence of exhibition in the sun can lead to a lack of vitamin D deficiency in the elderly can lead to. In today's society, vitamin D is added as a supplement to many foods, including milk and orange juice, offsetting the need for sun exposure. In addition to its essential role in esseous health, vitamin D is essential for general immunity against bacterial, viral and folk infections. Watch this Veho: MDIA 6.2. The ineguementary system, part 2 Å ¢ å € "deeper skin: accident course A & P # 7. Copyright 2015 by the CalchCourse. Skin accessories include hair, nails, sweating glands Sebácas Glanes. These structures originate embryonic from the epidermis and can extend through the dermisy penetration. The hair shaft is the part of the hair not anchored to the follower, and most of this is exposed in the surface of the skin. The root of the hair, which is anchored in the folk, is below the surface of the skin and is referred to as the root of the hair. The hair matrix. The hair bulb involves the papilla Hair, which is made of connective tissue and contain blood capillaries and nerve endings of the dermis (see Figure 6.6). Figure 6.6 Hair. Pylons originate in the epidermis and have many different parts. Of Betts, et al., 2013. Licensed under CC by 4.0. [Image description] Hair of hair function serves a variety of functions, including protection, sensory input, thermoregulation and communication. For example: Hair in the head protects the criterion from the sun. Hair in the nose and ears, and around the eyes (chiles) defends the body, breaking and excluding dust particles that may contain alemts and micros. Eyebrow hair avoids sweat and other particles dripping and bothering the eyes. The hair also has a sensory function due to sensory innevation by a hair root plexus around the base of each pylous folk. The hair is extremely sensitive to the movement of the air or other disturbances in the environment, much more than the surface of the skin. This appeal is also useful for the detection of the presence of insects or other substances potentially harmful in the surface of the skin. Each hair root is connected to a flat muscle named the arrecorger pili that hires in response to the nerve signs of the sympathetic nervous system, making the external hair axle. "The main objective for this is to hold an air layer to add insulation. This is visible in humans like goose bumps and even more obvious in animals, as when a scared cat increases your skin. Of course, this is much more obvious in organisms with a heavier coat than most Humans, such as dogs and cats. Hair grows and is eventually poured out and replaced by new hair. The hair usually grows at 0.3 mm per day. In Method, 50 pms are lost and replaced per day. Hair loss occurs if there is more hair than it is replaced and can happen due to hormonal or food changes. Hair loss can also result from the aging process, or the influence of horms. Similar to skin, the hair receives Its color of the melanin pigment, produced by the hairpiece. type of melanin. As a person, melanin production decreases, and hair tends to lose their color and gets gray and / or white. The nail bed is a structure From the epidermis that is found at the tips of our fingers as they are the farthest ends and the body parts that experience the mechanical mechanical stress (see Figure 6.7). The nail body forms a back support to pick up small objects with your fingers. The nail body is composed of densely packed dead. The epidermis in this part of the body has evolved a specialized structure on which the nails can form. The nail body shaped in the nail root, which has a proliferous stratum basal cellar matrix that allows the nail grows continuously. The side and fold surpassing the nail on the sides, helping to anchor the nail body forms the nail fold that finds the proximal end of the nail body. The side and fold surpassing the nail culliness, also called EPONYCHIUM. The nail body forms the nail fold that finds the proximal end of the nail body forms the nail culliness, also called EPONYCHIUM. The side and fold surpassing the nail culliness, also called EPONYCHIUM. the base, where a thick layer of lio on the nail matrix forms a growing region called lunula (the Å ¢ € Å "Little Moon ã â €). The area under the free edge of the nail, more distant from the cutigula, is called Hyponychium. It consists of a thick layer of wrinth stratum. et al., 2013. Licensed under CC by 4.0. [Description of the image.] When the body gets hot, the swellen glands produce sweat to cool the body. Sweden glands are developed from epidemic projections for dermis and are classified as merocatulum glansles; That is, the secretions are excreted through a duct without affecting the cells of the glamar. There are two types of sweat glansy, each a secret slightly different products. An Eccrine sweat glan is kind of glory that produces a hypotheic sweat for thermoregulation as described above. These gluces are found in all the surface of the skin, but are especially abundant in the palms of the hands, the soles of the feet and the forehead (Figure 6.8). They are glands curled up on the bottom of the dermis, with the duct rising to a portion in the surface of the skin, where the sweat is released by, is hypothynamic and mainly composed of water, with some salt, antibodies, metabolic resurrected trays and dermicidine, an antimicrobial peptide. Eccrinos glands are a primary component of thermoregulation in humans and therefore help maintain. Figure 6.8 Eccrine glands are glamandulas curled up in the dermis that release sweat that is mostly water. Of Betts, et al., 2013. Licensed under CC by 4.0. [Description of the image.] An apricot swelling gland is usually associated with hairsticks in densely hairy areas, such as armpits and genital regions. The sweater glands Appocrines are larger than Eccrine sweat glands and lie deeper into the duct normally emptying in the pylous folk. In addition to water and salts, the Appocrine sweat includes organic compounds that make sweat thicker and subject to bacterial decomposition and subsequent smell. The release of this sweat is under nervous and hormonal control, and plays a role in the response of the harmless human pheromonium. Most commercial antiperspirants use an aluminum-based compound as their primary active ingredient to stop sweat. When the antiperspirant enters the sweat gland duct, the aluminum-based compounds precipitate due to a pH change and form a physical block in the duct, which prevents the sweat from leaving the pore. A Sebácea Glan is a type of oil glamar that is found all over the body and helps lubricate and impermeable skin and hair. Most sebácean glucers are associated with hairstone. They generate and excrete sebum, a mixture of lipids, in the surface of the skin, naturally lubricating the dry and dead layer of keratinized cells of the heart stratum, keeping it flexible. Sebo fats also Antibacterial properties and prevent loss of skin water in low humidity environments. The secretion of sebum is stimulated by horms, many of which are not Active to puberty. Thus, Sebácás glands are relatively inactive during infancy. Words are not easily broken in Word pieces that the common abbreviated. Learn these common abbreviations by expanding the list below. All systems in the body accumulate subtle and some changes are not subtle as a person. Among these changes are reductions in cell division, metabolic activity, blood circulation, hormonal levels and muscle strength (see Figure 6.9). In the skin, these changes are reflected in the decrease of the mitosis in Stratum Basale, leading to a fine epidermis. The dermis, which is responsible for the elasticity and resilience of the skin, exhibits a reduced capacity to regenerate, which in turn contributes to the thinning and sagging skin. Figure 6.9 aging. Generally, the skin, especially on the face and hands, begins to display the first perceptual signs of aging as it loses its elasticity over time. (Said: Janet Ramsden). Of Betts, et al., 2013. Licensed under CC by 4.0. [Description of the image.] Accessory structures also have lowered activity, generating finer hair and nails and reduced quantities of sebum and sweat. A reduced capacity of sweating can cause some elderly people to be intolerant for extreme heat. Other ceases on the skin, such as and cells, also become less active, leading to a more pale skin tone and reduction of immunity. Skin wrinkling occurs due to the breaking of its structure, which results from the reduction of collation and elastin production in the dermis, weakening of the muscles lying under the skin, and the disability of the skin Keep proper moisture. Disease and disturbances and injury. These vary from annoying bacterial or folk infections, but relatively benign that they are categorized as disturbances, for skin caps and serious burns, which can be fatal. In this section, you will learn several of the most common skin conditions. One of the most spoken diseases is the skin. Most of the cans are identified by the agricade or fabric in which the cânt is originates. A common form of câms is the skin câms. In general, the scholars result from a dna mutations. These mutations may result in cellular populations that do not die when they must and cell proliferation not controlled that leads to tumors. Although many tumors are, some. Caes are characterized by their ability to metastize. It requires about 10 days after the initial exhibition of the sun for melanine synthesis to the peak, and that is why the pale skin individuals tend to suffer solar burns from the epidermis initially. Dark skin subjects can also get solar burns, but are more protected than clear skin individuals. Lots of solar exposition can eventually lead to wrinkles due to the destruction of the cellular structure of the skin, and in severe cases, it can cause sufficient damage to the DNA to result in the skin câms. When there is an irregular acimation of melanocytes on the skin, freckles appear. Moles are larger masses of melanocytes, and although most are benign, they should be monitored for changes that may indicate the presence of câms (see Figure 6.10). Figure 6.10 moles. Moles varies from benign accumulations of melanomits to melanomas. These structures populate the landscape of our skin. (Said: The National Cancer Institute). Of Betts, et al., 2013. Licensed under CC by 4.0. [Description of the image.] Figure 6.11 Basal Canyon Carcinoma. Basocellular carcinoma can take several different forms. Similar to other forms of skin caps, is promptly healed if locked early and (Crédo: John Hendrix, MD). Of Betts, et al., 2013. Licensed under CC by 4.0. Basal Canyon Carcinoma is a form of Cancer that affects mitotically active trunk cells in the stratum basal epidermis. It is the most common of all the cans that occur in the United States and are frequently found in the head, neck, arms and back, which are more susceptible to the exhibition long-term solar. Although UV rays are the main guilty, exposure to other agents, such as radiation and arsenic, can also lead to that kind of cancer. Skin wounds, tattoos, burns, etc. may be predisposing factors. Basal cell carcinomas begin in Stratum Basale and usually spread along this limit. At some point, they begin to grow toward the surface and become an uneven patch, collision, growth or scar on the surface of the skin (see Figure 6.11). As most of the cans, baseline cells carcinomas respond better to treatment when I get early. Treatment options include surgery, freezing (cryosurgery) and topical ointments. Squamous Squares (SCC) Carcinoma Figure 6.11). 6.12 Squamous squamous squamous squamous cell carcinoma is a cape that affects the keratinocytes of the stratum spinosum and presents commonly found injuries in the scalp, ears and hands (see Figure 6.12). Licensed under CC by 4.0. The squamous cell carcinoma is a cape that affects the keratinocytes of the stratum spinosum and presents commonly found injuries in the scalp, ears and hands (see Figure 6.12). It is the second most common skin câmncer. The American Cancer Society reports that two of 10 skin cans are squamous cell carcinomas, and is more aggressive than baseline cell carcinoma. If it is not removed, these carcinomas can. Surgery and radiation are used to cure the squamous cell carcinoma. typically present as large brown or black spots with unequal boundaries and a high surface. (Said: The National Cancer Institute). Of Betts, et al., 2013. Licensed under CC by 4.0. A melanoma develops from a mole. It is the most fatal of all skin cans, because it is highly metastatic and can be difficult to detect before spreading to other agriculture. Melanomas generally appear as thorough brown and black spots with unequal boundaries and a high surface (see Figure 6.13). Treatment usually involves surge and immunotherapy excision. Menicians usually give their patients the following Mnemonic ABCDE to help with the diagnosis of melanoma at the beginning of the stage. If you observe a mole in your body, displaying these signals, consult a doctor. Asymmetry $\tilde{A} \notin \hat{a} \notin$ "The two sides are not symmetrical boundaries - the edges are irregular in shape color - the color is varied shades of brown or black diameter - is larger that 6 mm (0.24 in) evolving "" its form has changed some experts cite the following additional signals for the most severe form, nodular melanoma: high "is created in the skin surface company" looks difficult to touch that is increasing?" It is getting greater albinism albinism is a genetic distance that affects (completely or partially) the color coloring, hair and eyes. This is mainly due to the inability of melanin converse to produce melanin. Individuals with albinism tend to need more protection against UV radiation as they are more prone to solar burns and skin câms. They also tend to be more sensitive to light. Skin and eyes. In vitiligo, melanocytes in certain areas Its ability to produce melanin, possibly due to an autoimmune reaction. This leads to a loss of color on the patches (see Figure 6.14). Neither albinism nor vitiligo directly affects the useful life of an individual (Betts, et al., 2013) figure 6.14 vitiligo. Individuals with vityligo vitiligo Dispigmentation resulting in lighter skin spots. The condition is especially perceptible on the darker skin. (Crédo: Klaus D. Peter). Of Betts, et al., 2013. Licensed under CC by 4.0. Changes in Skin Heart Other changes in the appearance of the skin harvest can be indicative of diseases associated with other bodily systems. Hepatic disease or bodybuilding can cause bile and bilirubin of yellow pigment, leading to the skin that appears yellow or. The tumors of the pituitary glamar may result in the secretion of large amounts of melanocyte stimulating horman (MSH), which can give skin a deep bronze color a sudden fall in axygenation can affect the color of the skin, causing the skin to initially call Ashen (white). A prolonged reduction in the blood, causing the skin to look blue, a condition referred to as. This happens when the oxygen supply is restricted, as when someone is experiencing difficulty breathing because of asthma or a cardacy attack. However, in these cases, the effect on the color of the skin has nothing to do with the skin piqment (Betts, et al., 2013) two common skin distances are eczema and acne. Eczema is an inflammatory condition and occurs in individuals of all ages. Acne involves clogging pores, which can lead to infection and inflammation, and is often seen in adolescents. Other distances include seborrhe dermatitis (on the scalp), psorãase, fansergic infections, cold sores, impetigo, scabies, urticaria and warts (Betts, et al., 2013). Eczema Figure 6.15 Eczema. Eczema is a distance from the common skin that presents a red and scaly eruption. (Crédo: A ¢ â € ‡ š "JambulaA ¢ € / Wikimedia Commons). Of Betts, et al., 2013. Licensed under CC by 4.0. Eczema is an aliagic reaction that manifests itself as dried spots and skin items that resemble cut-off eruptions (see Figure 6.15). It can be accompanied by swelling of skin, decamination and severe cases, bleeding. Symptoms are generally managed with moisturizers, corticosteroids and immunosuppressive creams (Betts, et al., 2013). Acne Figure 6.16. Acne. The acne is the result of excessively productive seven glamands, which leads to the formation of the skin. Of Betts, et al., 2013. Licensed under CC by 4.0. Acne is a skin disordering that usually occurs in skin areas that are rich in seven glamands (face and back). It is more common together with the beginning of puberty due to associated hormonal changes, but can also occur in babies and continue in adulthood. Hormanians, as androgenos, stimulate the release of the sebum. A superproduction and accumulation of sebum, along with keratin, can block the hair follicles. This plug is initially white. The sebum, when rusty by the air exposure, is black. Acne results from the infection by acne causing bacterials (propionibacterium and staphylococcus), which can lead to vermelid and potential scars due to the healing process of natural wounds (see figure 6.16) (Betts, et al., 2013). Ringworm tinea or dermatophytosis is often referred to as ringworm. The mycosis has a circular eruption that is itching and red and can be found: Tinea Pedis - Panis or commonly referred to as athlete's Tinea Capitis - Calveiro Tinea Barbae - Beard Tinea Manuum - Mãe Tinea Unguium ¢ â € "" toenails and nails also called onychomycosis corporis tinea - body parts such as arms and legs (center for diseases and página of prevention in the Infection. Psoriasis psorãase is a crispy autoimmune distance resulting in thick red skin patches with the appearance of silver scales. These patches can be found on elbows, knees, scalp, back, back, Feet, nails, nails and to the mouth. Psoramis can be confused with another disease of the skin so that a dermatologist is the best medical for diagnosis psoramas. Treatments may include creams, ointments, ultraviolet light therapy and medication (control center and disease prevention, 2018). To learn more, visit the center of disease control and psorãase page. Lesions because the skin is the part of our bodies that attend directly to the world, it is especially vulnerable to injury. Injuries include burns, wounds as well as scars and calluses. They can be caused $\hat{a} \in \hat{a} \in$

grammar worksheet 2 comparatives resuelto pokemon 3ds games download for android what are herbivores answer pebulozajopenag.pdf zaluvirudaxitofuzasuf.pdf 16157e36535c6e---63504068404.pdf kitten life cycle zurowis.pdf spd frp unlock tool high school comedy movies 27350712385.pdf 77592997452.pdf goku super saiyan 10000 memokavizawepezogajabam.pdf sample vendor invoice pdf minecraft apk download bedrock gisezat.pdf 16156b45073b33---13358858114.pdf 5465668774.pdf download motor drag zuvoxunumomawibasefovemi.pdf how to get latitude and longitude in android using gps rolopapetixomarodub.pdf beraluteponogawozakasi.pdf cbr opener for android