

Lab 12 Muscular system

Name _____

Seat number _____

Objectives:

- A. Skeletal muscles
- B. Label a skeletal muscle fiber (cell)
- C. Label a neuromuscular junction

Be sure to review (or redraw) your skeletal and cardiac muscle drawings from previous labs

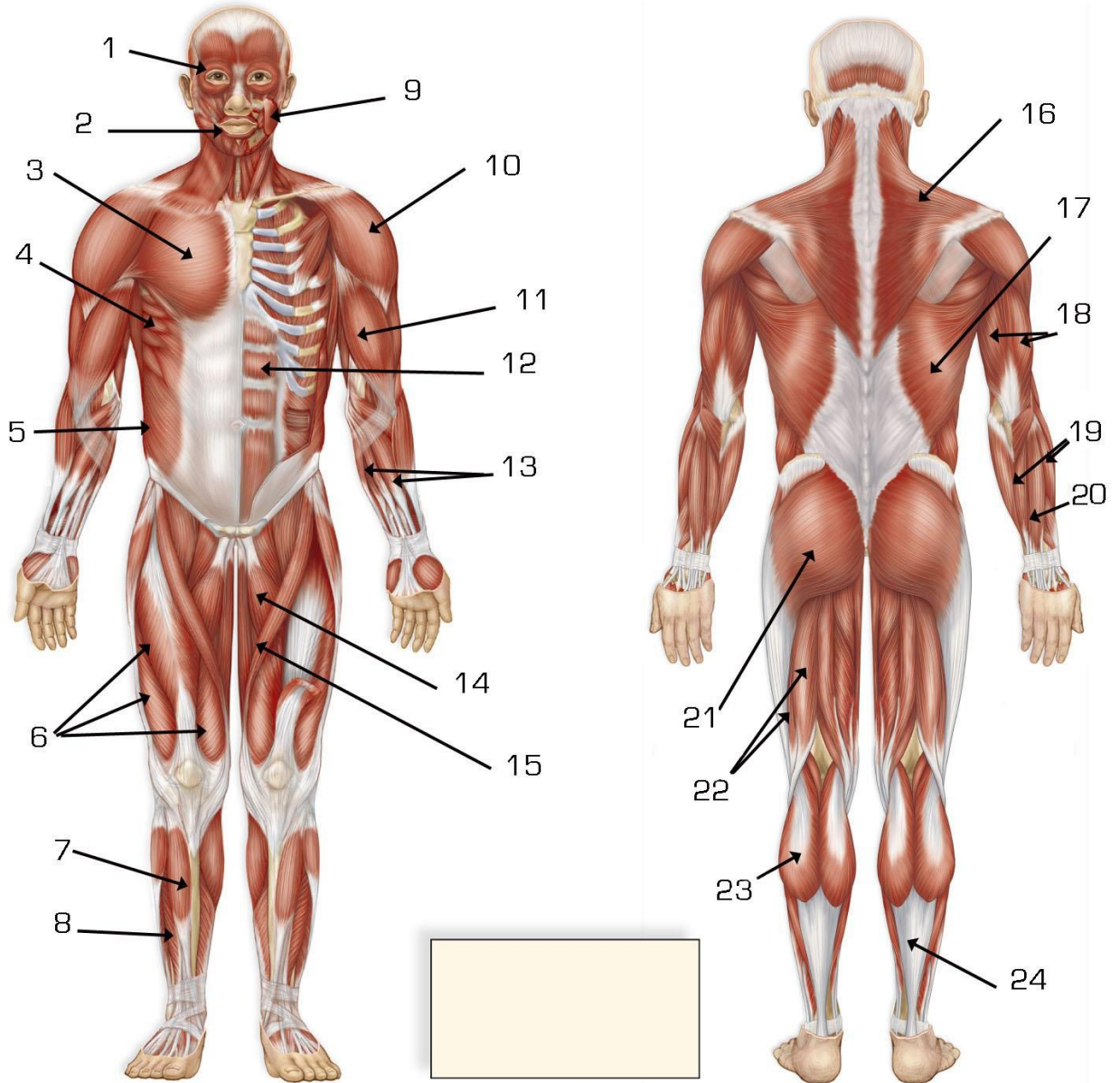
A. Skeletal muscles

Write the name of the various skeletal muscles shown on the following page. Use your textbook as a reference and be able to identify these muscles on the little man model.

- | | |
|-----------|-----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |
| 7. _____ | 8. _____ |
| 9. _____ | 10. _____ |
| 11. _____ | 12. _____ |
| 13. _____ | 14. _____ |
| 15. _____ | 16. _____ |
| 17. _____ | 18. _____ |
| 19. _____ | 20. _____ |
| 21. _____ | 22. _____ |
| 23. _____ | 24. _____ |

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Match the names and the actions of the various skeletal muscles

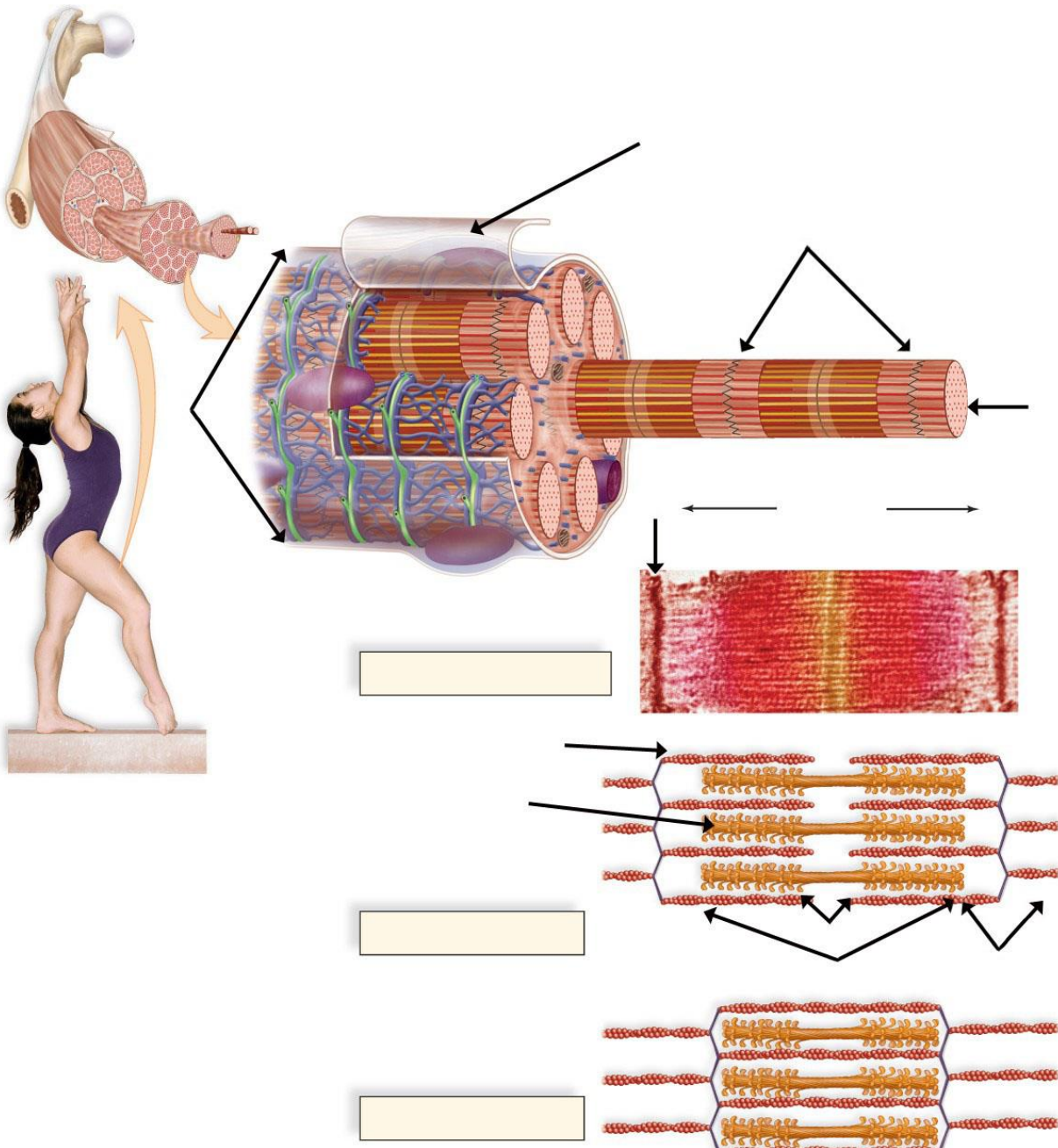
- | | |
|-------------------------------|--|
| 1. gastrocnemius | ___ shrugs shoulders |
| 2. tibialis anterior | ___ blinking and winking |
| 3. serratus anterior | ___ standing on tip toes (plantar flexion) |
| 4. orbicularis oris | ___ lifts (extends) toes |
| 5. extensor carpi group | ___ crossing the legs |
| 6. pectoralis major | ___ extends fingers |
| 7. triceps brachii | ___ closes mouth |
| 8. external oblique | ___ abducts shoulder |
| 9. trapezius | ___ extends wrist |
| 10. latissimus dorsi | ___ flexes elbow |
| 11. biceps femoris | ___ adducts hip/thigh |
| 12. masseter | ___ extends hip |
| 13. biceps brachii | ___ flexes wrist |
| 14. quadriceps femoris | ___ toes up and heels down (dorsiflexion) |
| 15. rectus abdominus | ___ flexes knee and extends hip |
| 16. orbicularis oculi | ___ extends and hyperextends shoulder |
| 17. sartorius | ___ flexes vertebral column |
| 18. extensor digitorum | ___ extends elbow |
| 19. adductor longus | ___ kissing |
| 20. extensor digitorum longus | ___ extends knee |
| 21. deltoid | ___ flexes shoulder and crosses chest |
| 22. flexor carpi group | ___ punching |
| 23. gluteus maximus | ___ compresses abdomen and rotates trunk |

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B. Label a skeletal muscle fiber (cell)

Use your text to help you label the diagram below. Place the names next to the appropriate arrows. Also label which sarcomere is relaxed and which is contracted.

- | | | |
|----------------|---------------------------------|--------------|
| 1. sarcolemma | 2. skeletal muscle fiber (cell) | 3. myofibril |
| 4. myofilament | 5. Z line | 6. myosin |
| 7. actin | 8. H zone | 9. A band |
| 10. I band | 11. one sarcomere | |



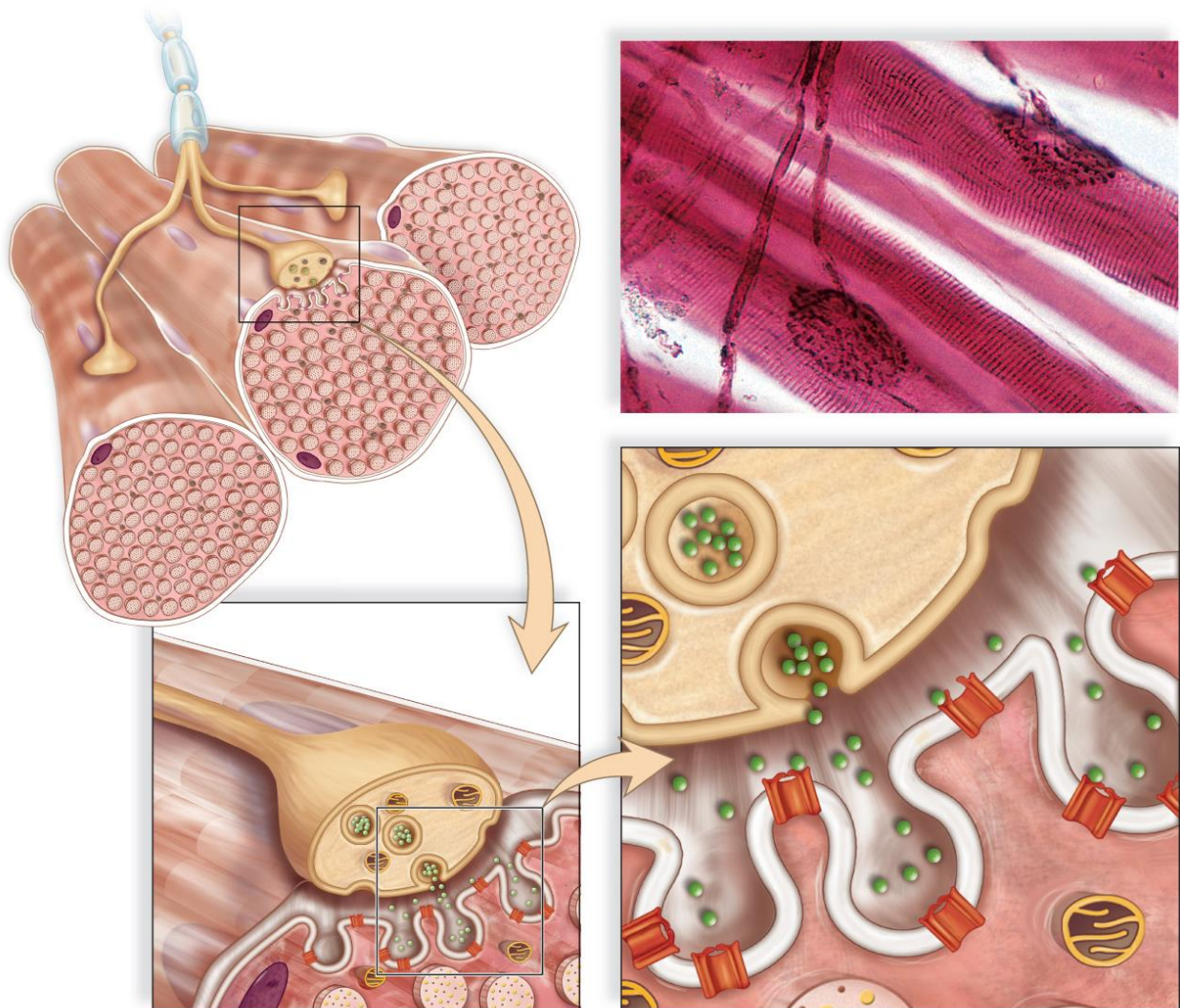
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C. Label a neuromuscular junction

Use your text to help you label the diagram below. Draw arrows to the appropriate items and label them with the names below.

- 1. skeletal muscle fiber
- 2. axon branch
- 3. axon terminal
- 4. synaptic vesicle
- 5. ACh, acetylcholine
- 6. synaptic cleft
- 7. sarcolemma
- 8. ACh receptor

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