Action Pose Drawing: Motion Lines and Dynamic Balance

Original tasks 1, 2, 3 / complete keys

Task 1

A jumping figure has a COM at the apex. The trajectory line is vertical. Draw two motion lines that follow the trajectory and fan at the apex. Describe their direction and relative length.

Answer: Two lines parallel to the vertical trajectory, one on each side of the COM, fanning outward at the apex. The line on the side of the faster-moving limb is longer.

Reason: Motion lines follow the trajectory and fan at the apex to show the change of direction. Longer lines indicate faster motion.

Check: Verify that both lines are parallel to the trajectory and that the longer line is on the side of the faster limb.

Task 2

A reaching figure has a support area 6 cm wide. The COM projection is 5 cm from the center of the support area. The foot-length unit is 4 cm. Is the pose within the one-foot-length limit?

Answer: No. The offset is 5 cm, which is greater than 4 cm. The pose exceeds the limit and may read as off-balance.

Reason: The limit is one foot-length (4 cm). The offset of 5 cm exceeds this, so the pose is outside the limit.

Check: Compare the offset (5 cm) to the foot-length unit (4 cm); 5 > 4, so the pose fails the check.

Task 3

A running figure has motion lines trailing from the back foot and the forward arm. The back foot line is 3 cm long and the arm line is 1 cm long. Which part is moving faster according to the convention?

Answer: The back foot is moving faster because its motion line is longer (3 cm vs 1 cm).

Reason: Longer motion lines indicate greater distance traveled in the same time interval, hence faster motion.

Check: Compare the line lengths; the longer line corresponds to the faster part.

Action Pose Drawing: Motion Lines and Dynamic Balance

Original tasks 4 / complete keys

Task 4

A jumping figure in flight has no support point. What replaces the balance axis, and how should motion lines be drawn?

Answer: The balance axis is replaced by a trajectory line through the COM. Motion lines are drawn parallel to the trajectory and fan at the apex.

Reason: In flight, there is no support, so the trajectory line shows the path of the COM. Motion lines follow this path.

Check: Check that the trajectory line passes through the COM and that motion lines are parallel to it.

Action Pose Drawing: Motion Lines and Dynamic Balance

Source rubric / reflection

- [ ] Balance axis is drawn from support point or area through the COM.
- [ ] COM projection is within one foot-length of the support point unless a fall is intended.
- [ ] Motion lines follow the direction of travel and taper toward the trailing end.
- [ ] Motion line length varies with speed and is consistent with the convention.
- [ ] Motion lines do not cross the figure's silhouette unless showing an object in front.
- [ ] Pose clearly reads as running, jumping, or reaching.
- [ ] Valid alternatives (dashed, tapered, parallel strokes) are accepted if applied consistently.

Reflection: What did you check, what did you change, and what will you try next?