

Question 7

Answer:

7	<p>Six from:</p> <p>Warping/deforming these from the original images so final image has same shape</p> <ul style="list-style-type: none"> ...use of forward mapping ...each pixel in original image is mapped to an appropriate pixel in final image ...use of reverse mapping ...each pixel in the final image is sampled for an usable/ appropriate pixel in the original ...all final image pixels are mapped to an original image pixel <p>Cross-dissolving the images</p> <ul style="list-style-type: none"> ...a sequence of images shows a gradual fade from one to the other ...via a (series of) transition images ...original image is gradually distorted and faded out ...final image starts out totally warped to the first and is faded in. 	6
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November 2017 – P32

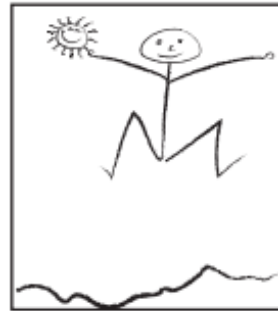
- 12 An animator is producing a digital cartoon showing a dancer in action on a beach. She has produced four frames of her cartoon and digitised them.



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Explain how you would create the illusion of movement between frames 1 and 4.

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Question 12 (Continued)

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Answer:

12	<p><i>Eight from:</i></p> <p>Using the four frames as key frames ...filling in of frames between frames 1, 2, 3 and 4 ...using variable frame frequency depending on content ...fewer frames between frames 1 and 2 than e.g. between 2 and 3 ...as background is stationary then lower frame rate than foreground characters May be low frame rate so makes motion jerky/unrealistic Need to add at least 8 frames in order to create smooth movement Need to add enough frames so that frame rate is below 'flicker fusion' threshold... ...else movement will appear to flicker and illusion of movement is destroyed Motion blurring of the figures between frames 1 and 2 etc. can simulate faster movement.</p>	8
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Question 4

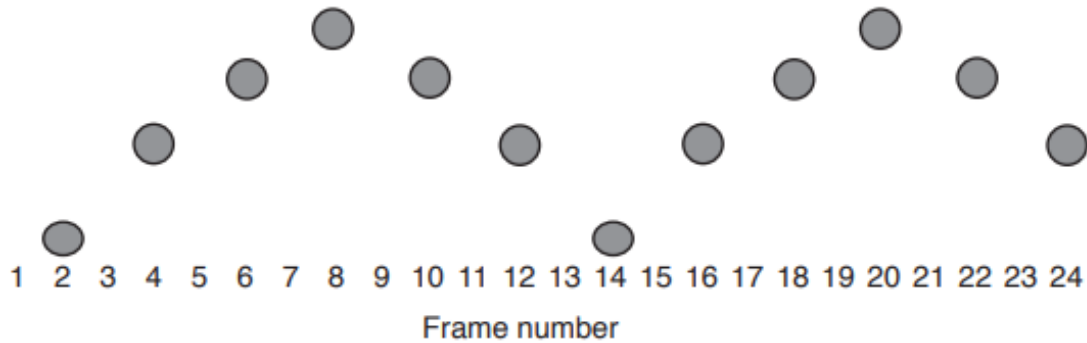
Answer:

4	<p>Six from:</p> <p>Animator drew frames 1 and 5 and 8 Frame 8 created by flipping/reflecting of frame 1 These are used as key frames Frame 1 was duplicated/copied (by computer) to create frames 2, 3 and 4 Frame 5 was duplicated/copied (by computer) to create frames 6 and 7 Key frames define the start and end point of transitions that can be used by a computer-based animation application Tweening was used to create frames in between.</p>	6
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June 2019 – P31 & P33

10 A typical animation has 24 frames for every second of running time (24 fps).

A bouncing ball drawn on ‘twos’ is shown on this timeline:



(a) Explain why the ball is drawn on ‘twos’.

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Question 10, Part (a)

Answer:

10(a)	<p>Four from:</p> <p>Animator only needs to draw 12 frames instead of the full 24 so saves time / effort ...fewer animators / less computer time needed for the whole project (Drawing on 'twos') makes slow animations look / appear smoother to the eye Less precision / accuracy is needed than for drawing on 'ones' ('ones' animation does not look jerky) so drawing can be done faster / with less skill from animator (Drawing on 'twos') makes animations appear more lively / active than when drawn on 'ones'.</p>	4
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Question 10, Part (b)

- (b) Suggest **one** reason why the animator might choose to draw the animation on 'ones' instead of 'twos'.

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Answer:

10(b)	<p>One from:</p> <p>Action needs to appear very fast / active Animation can include a flurry of activity around the main object Can portray a very smooth animation of many objects in the animation.</p>	1
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Question 10, Part (c)

(c) Describe the effect of drawing the ball in this animation on 'fours' instead of 'twos'.

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Answer:

10(c)	One from: The animation may appear jerky / flashing of objects on / off Objects move very fast.	1
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