

# JONES COUNTY CAREER-TECHNICAL CENTER

REX BUCKHAULTS, DIRECTOR  
AMANDA JONES, ADM. ASSISTANT  
DEBRA BUSH, COUNSELOR

2409 MOOSE DRIVE  
LAUREL, MS 39440  
PHONE: 601.425.2378 FAX: 601.425.2349

March 31, 2020

Dear Parents and Career Tech Students:

From the Faculty, Staff and Administration of the Jones County Career Technical Center, it is our intent to provide enrichment activities for our students and support for our parents during these difficult times.

The following enrichment activities will allow students to review the instruction that they already have received this year.

You will find questions with answers for you to study and review. There are no assignments to be returned to school.

If the JCCTC can be of any assistance to our students and parents with the enrichment activities, please feel free to call us at 601-425-2378 between the hours of 9:00 a.m. and 1:00 p.m. or contact the instructor by email. Email addresses are located under the program name on our webpage.

Sincerely,



Rex Buckhaults  
Director, JCCTC

## Drafting First Year Enrichment Activity

## Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

1. The thin lines placed between extension lines to indicate a linear distance are \_\_\_\_ lines.
  - a. cutting-plane
  - b. dimension
  - c. object
  - d. section
2. The centers of round objects are indicated using \_\_\_\_\_.
  - a. centerlines
  - b. hidden lines
  - c. object lines
  - d. section lines
3. Lines drawn as a series of dashes .125" in length with spaces .06" in length between the dashes are \_\_\_\_\_.
  - a. construction lines
  - b. dimension lines
  - c. extension lines
  - d. hidden lines
4. Section lines are typically drawn inclined at \_\_\_\_\_.
  - a. 30°
  - b. 45°
  - c. 60°
  - d. 75°
5. Cutting-plane lines are drawn to the same weight as \_\_\_\_\_.
  - a. centerlines
  - b. hidden lines
  - c. object lines
  - d. section lines
6. An extension line typically begins \_\_\_\_ away from the edge or feature of the object being dimensioned.
  - a. .06"
  - b. .08"
  - c. .1"
  - d. .12"
7. Which of the following tools should *not* be used to sketch lines?
  - a. Drawing pencil
  - b. Eraser
  - c. Graph paper
  - d. Scale
8. A(n) \_\_\_\_ is sketched by first constructing a rectangle with dimensions equal to the major and minor axes of the object.
  - a. circle
  - b. ellipse
  - c. hexagon
  - d. octagon
9. A \_\_\_\_ is used to draw circles.
  - a. compass
  - b. protractor
  - c. scale
  - d. triangle
10. Which of the following tools is used to transfer distances?
  - a. Dividers
  - b. French curve
  - c. Protractor
  - d. Template
11. A \_\_\_\_ can be used as a pencil pointer.
  - a. compass
  - b. drafting machine
  - c. sandpaper pad
  - d. template
12. A \_\_\_\_ is used to remove eraser dust from a drawing.
  - a. drafting machine
  - b. dusting brush
  - c. lead holder
  - d. scale
13. A(n) \_\_\_\_ is used to mask items you wish to keep when erasing errors from a drawing.
  - a. dusting brush
  - b. erasing shield
  - c. irregular curve
  - d. protractor
14. A \_\_\_\_ is used to draw inclined lines that cannot be drawn with triangles.
  - a. compass
  - b. drafting machine
  - c. scale
  - d. triangle

- b. protractor  
d. T-square
15. Which of the following is *not* a form of drafting media?  
a. Drafting film  
b. Drafting tape  
c. Tracing paper  
d. Vellum
16. The dimensions of a B-size sheet are \_\_\_\_\_.  
a.  $8.5 \times 11$   
b.  $11 \times 17$   
c.  $17 \times 22$   
d.  $22 \times 34$
17. A(n) \_\_\_\_\_ scale typically contains scales labeled 10, 20, 30, 40, 50, and 60.  
a. architect's  
b. engineer's  
c. mechanical drafter's  
d. metric
18. The best way to attach drafting media to a drawing board is to use \_\_\_\_\_.  
a. staples  
b. thumbtacks  
c. rubber cement  
d. drafting tape
19. The whole number divisions on an architect's scale represent \_\_\_\_\_.  
a. inches  
b. feet  
c. millimeters  
d. meters
20. \_\_\_\_\_ lines are very thin lines drawn approximately .012" thick.  
a. Construction  
b. Cutting-plane  
c. Dimension  
d. Object
21. \_\_\_\_\_ are drawn approximately twice as thick as hidden lines.  
a. Centerlines  
b. Object lines  
c. Phantom lines  
d. Section lines
22. \_\_\_\_\_ lines are made up of a series of long dashes (.75" to 1.50") and two short dashes (.125").  
a. Construction  
b. Cutting-plane  
c. Dimension  
d. Hidden
23. Which of the following statements is *not* true of object lines?  
a. They should be drawn using an H or 2H drawing pencil.  
b. They should be drawn very sharp.  
c. They are drawn to the same line weight as centerlines.  
d. They should be drawn approximately .024" thick.
24. \_\_\_\_\_ have alternating long and short dashes drawn through the perimeter of a circular object.  
a. Centerlines  
b. Extension lines  
c. Object lines  
d. Section lines
25. On an architect's scale, each division on the 16 scale is equal to \_\_\_\_\_.  
a.  $1/2$ "  
b.  $1/4$ "  
c.  $1/8$ "  
d.  $1/16$ "
26. Which of the following statements is *not* true in relation to drawing lines?  
a. Lines must appear consistent in width from end to end.  
b. The pencil should form approximately a  $30^\circ$  angle against the drawing edge as the line is drawn.  
c. Lines should be "pushed" onto the paper, not "pulled."  
d. The pencil should be rotated between the thumb and forefinger as the line is drawn.
27. The lines making up the sides of a hexagon form \_\_\_\_\_ angles.  
a.  $30^\circ$   
b.  $60^\circ$   
c.  $90^\circ$   
d.  $120^\circ$
28. A(n) \_\_\_\_\_ is a closed curve in the form of a symmetrical oval with four quadrants.  
a. ellipse  
c. rhomboid

- b. octagon  
d. trapezoid
- \_\_\_ 29. A line that forms a  $90^\circ$  angle with another line is \_\_\_\_.  
a. concentric  
b. parallel  
c. perpendicular  
d. tangent
- \_\_\_ 30. A regular \_\_\_\_ has five equal sides.  
a. hexagon  
b. octagon  
c. pentagon  
d. rhomboid
- \_\_\_ 31. A(n) \_\_\_\_ triangle has no equal sides or angles.  
a. equilateral  
b. isosceles  
c. right  
d. scalene
- \_\_\_ 32. CAD drawings are commonly output as hard copy with a \_\_\_\_.  
a. digitizing tablet  
b. drafting machine  
c. monitor  
d. plotter
- \_\_\_ 33. A \_\_\_\_ is used to convert hard-copy images to bitmap form.  
a. drafting machine  
b. plotter  
c. scanner  
d. stylus
- \_\_\_ 34. Which of the following is *not* used to enter commands in a CAD program?  
a. coordinate axis  
b. digitizing tablet  
c. keyboard  
d. toolbar
- \_\_\_ 35. In the Cartesian coordinate system, the \_\_\_\_ axis is considered the horizontal axis.  
a. W  
b. X  
c. Y  
d. Z
- \_\_\_ 36. Which of the following is a valid polar coordinate entry?  
a. (3,6)  
b. (5,0,3)  
c. (@6,3)  
d. (@3<30)
- \_\_\_ 37. To draw a(n) \_\_\_\_, a center point, minor axis, and major axis must be specified.  
a. chamfer  
b. circle  
c. ellipse  
d. line
- \_\_\_ 38. Which of the following is *not* specified when drawing a polygon?  
a. Center point  
b. Circle radius  
c. Mirror axis  
d. Number of sides
- \_\_\_ 39. The \_\_\_\_ command is used to change the angular position of an object with respect to the current orientation.  
a. Copy  
b. Move  
c. Rotate  
d. Scale
- \_\_\_ 40. The \_\_\_\_ command is used to lengthen a line to meet an edge.  
a. Extend  
b. Move  
c. Scale  
d. Trim
- \_\_\_ 41. The \_\_\_\_ command is used to move the drawing across the display area without changing the magnification.  
a. Hide  
b. Pan  
c. Trim  
d. Zoom
- \_\_\_ 42. Drawing objects in a CAD program are \_\_\_\_ objects made up of lines and arcs defined with points in space.  
a. raster  
b. vector  
c. pixel  
d. bitmap
- \_\_\_ 43. Which CAD function allows you to align the cursor to points in an invisible grid?  
a. The Pan command  
b. The Units command  
c. Snap  
d. Orthogonal mode
- \_\_\_ 44. The Fillet command is used for \_\_\_\_.  
a. drawing chamfers  
c. mirroring objects

- b. drawing rounds
- d. scaling objects

\_\_\_ 45. In orthographic projection, the \_\_\_ principal plane represents the projection of the top view of the object.

- a. frontal
- b. horizontal
- c. profile
- d. vertical

\_\_\_ 46. When locating views on a drawing, the top view should be placed \_\_\_ the front view.

- a. above
- b. below
- c. to the left of
- d. to the right of

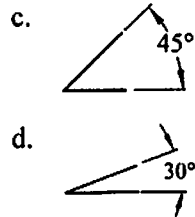
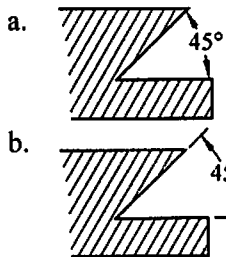
\_\_\_ 47. Extension lines should begin \_\_\_ away from the object feature.

- a. 1/32"
- b. 1/16"
- c. 1/8"
- d. 1/4"

\_\_\_ 48. \_\_\_ is a manufacturing operation in which a chamfered recess is cut at the end of a smaller hole and used to receive a fastener head.

- a. Counterboring
- b. Countersinking
- c. Spotfacing
- d. Turning

\_\_\_ 49. Which of the following conventions should *not* be used to dimension angles?



\_\_\_ 50. Dimension lines and extension lines are drawn to the same line weight as \_\_\_.

- a. border lines
- b. object lines
- c. centerlines
- d. section lines

\_\_\_ 51. When arranging dimensions on a drawing, \_\_\_ dimensions should be placed farthest from the view.

- a. location
- b. size
- c. small
- d. overall

\_\_\_ 52. A \_\_\_ is a chamfered recess at the end of a smaller hole used to receive the head of a fastener.

- a. countersink
- b. counterbore
- c. boss
- d. spotface

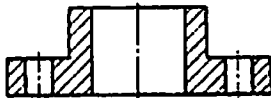
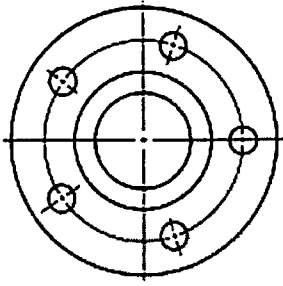
\_\_\_ 53. A(n) \_\_\_ is developed by passing a "stepped" cutting plane through features that do not lie on the same plane.

- a. full section
- b. offset section
- c. removed section
- d. revolved section

\_\_\_ 54. A(n) \_\_\_ is developed by cutting out a portion of a long, uniform object and sliding the ends together.

- a. aligned section
- b. conventional break
- c. offset section
- d. removed section

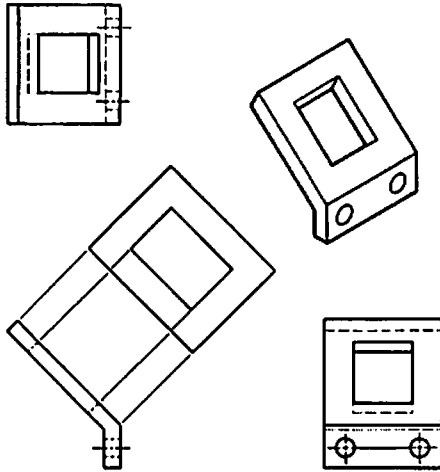
\_\_\_ 55. The following drawing uses a(n) \_\_\_ section view to show interior details.



- a. aligned
- b. half
- c. removed
- d. revolved

- \_\_\_ 56. To show where an imaginary cut is made through an object to be sectioned, a(n) \_\_\_ line is used.
- a. cutting-plane
  - b. object
  - c. phantom
  - d. section
- \_\_\_ 57. A(n) \_\_\_ section is used to describe objects with irregular features by rotating the features that do not intersect the cutting plane into the same plane.
- a. aligned
  - b. broken-out
  - c. outline
  - d. removed
- \_\_\_ 58. To project an auxiliary view from a surface inclined at  $45^\circ$  in a regular orthographic view, the auxiliary projection plane is drawn at \_\_\_.
- a.  $45^\circ$
  - b.  $60^\circ$
  - c.  $75^\circ$
  - d.  $90^\circ$
- \_\_\_ 59. Which of the following statements is *not* true regarding auxiliary views?
- a. A front auxiliary view is projected from a front orthographic view.
  - b. The conventional practice is to project only the inclined portion of an object in an auxiliary view.
  - c. Circular features are drawn as ellipses when projected to an auxiliary view.
  - d. A secondary auxiliary view is projected from a regular orthographic view.
- \_\_\_ 60. An auxiliary view is projected with construction lines at \_\_\_ to the inclined surface.
- a.  $45^\circ$
  - b.  $60^\circ$
  - c.  $75^\circ$
  - d.  $90^\circ$

*Use the following drawing to answer the questions below.*



- \_\_\_ 61. Which type of auxiliary view is projected in the drawing?
- Front auxiliary view.
  - Left-side auxiliary view.
  - Right-side auxiliary view.
  - Top auxiliary view.
- \_\_\_ 62. In which of the following views does the inclined surface of the object appear foreshortened?
- Top and auxiliary views
  - Front and side views
  - Top and side views
  - Top and front views
- \_\_\_ 63. The inclined surface of the object appears in its true length and width in the \_\_\_\_ view.
- auxiliary
  - front
  - side
  - top
- \_\_\_ 64. A cabinet oblique drawing has a depth axis drawn at \_\_\_\_ scale.
- one-quarter
  - one-half
  - three-quarter
  - full
- \_\_\_ 65. The \_\_\_\_ command is used to create 3D models from two-dimensional geometric shapes.
- Extrude**
  - Render**
  - Scale**
  - Zoom**
- \_\_\_ 66. A(n) \_\_\_\_ drawing uses two 30° horizontal axes and a vertical axis to represent the basic dimensions of an object.
- isometric
  - multiview
  - orthographic
  - section
- \_\_\_ 67. The depth axis lines in a cavalier oblique drawing are drawn at \_\_\_\_ scale.
- 1/4
  - 1/2
  - 3/4
  - full
- \_\_\_ 68. The depth axis lines in a cabinet oblique drawing are drawn at \_\_\_\_ scale.
- 1/4
  - 1/2
  - 3/4
  - full
- \_\_\_ 69. In an oblique drawing, the \_\_\_\_ surface of the object is parallel to the projection plane.
- front
  - side
  - top
  - bottom
- \_\_\_ 70. A two-point perspective drawing is also known as a(n) \_\_\_\_ perspective.
- angular
  - horizontal
  - parallel
  - vertical

## **Drafting First Year Enrichment Activity**

### **Answer Section**

#### **MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 1. ANS: B  | PTS: 1 |
| 2. ANS: A  | PTS: 1 |
| 3. ANS: D  | PTS: 1 |
| 4. ANS: B  | PTS: 1 |
| 5. ANS: C  | PTS: 1 |
| 6. ANS: A  | PTS: 1 |
| 7. ANS: D  | PTS: 1 |
| 8. ANS: B  | PTS: 1 |
| 9. ANS: A  | PTS: 1 |
| 10. ANS: A | PTS: 1 |
| 11. ANS: C | PTS: 1 |
| 12. ANS: B | PTS: 1 |
| 13. ANS: B | PTS: 1 |
| 14. ANS: B | PTS: 1 |
| 15. ANS: B | PTS: 1 |
| 16. ANS: B | PTS: 1 |
| 17. ANS: B | PTS: 1 |
| 18. ANS: D | PTS: 1 |
| 19. ANS: B | PTS: 1 |
| 20. ANS: A | PTS: 1 |
| 21. ANS: B | PTS: 1 |
| 22. ANS: B | PTS: 1 |
| 23. ANS: C | PTS: 1 |
| 24. ANS: A | PTS: 1 |
| 25. ANS: D | PTS: 1 |
| 26. ANS: C | PTS: 1 |
| 27. ANS: B | PTS: 1 |
| 28. ANS: A | PTS: 1 |
| 29. ANS: C | PTS: 1 |
| 30. ANS: C | PTS: 1 |
| 31. ANS: D | PTS: 1 |
| 32. ANS: D | PTS: 1 |
| 33. ANS: C | PTS: 1 |
| 34. ANS: A | PTS: 1 |
| 35. ANS: B | PTS: 1 |
| 36. ANS: D | PTS: 1 |
| 37. ANS: C | PTS: 1 |
| 38. ANS: C | PTS: 1 |
| 39. ANS: C | PTS: 1 |
| 40. ANS: A | PTS: 1 |
| 41. ANS: B | PTS: 1 |

42.	ANS: B	PTS: 1
43.	ANS: C	PTS: 1
44.	ANS: B	PTS: 1
45.	ANS: B	PTS: 1
46.	ANS: A	PTS: 1
47.	ANS: B	PTS: 1
48.	ANS: B	PTS: 1
49.	ANS: A	PTS: 1
50.	ANS: C	PTS: 1
51.	ANS: D	PTS: 1
52.	ANS: A	PTS: 1
53.	ANS: B	PTS: 1
54.	ANS: B	PTS: 1
55.	ANS: A	PTS: 1
56.	ANS: A	PTS: 1
57.	ANS: A	PTS: 1
58.	ANS: A	PTS: 1
59.	ANS: D	PTS: 1
60.	ANS: D	PTS: 1
61.	ANS: A	PTS: 1
62.	ANS: C	PTS: 1
63.	ANS: A	PTS: 1
64.	ANS: B	PTS: 1
65.	ANS: A	PTS: 1
66.	ANS: A	PTS: 1
67.	ANS: D	PTS: 1
68.	ANS: B	PTS: 1
69.	ANS: A	PTS: 1
70.	ANS: A	PTS: 1