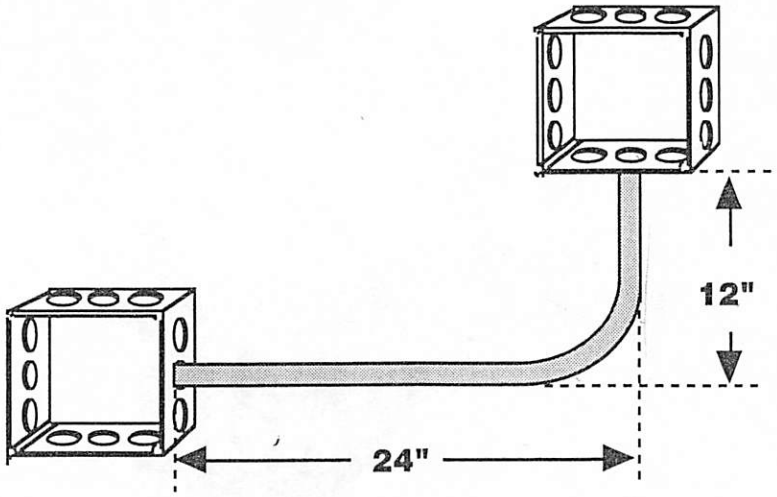
THE EXAM

TO MS TIPS

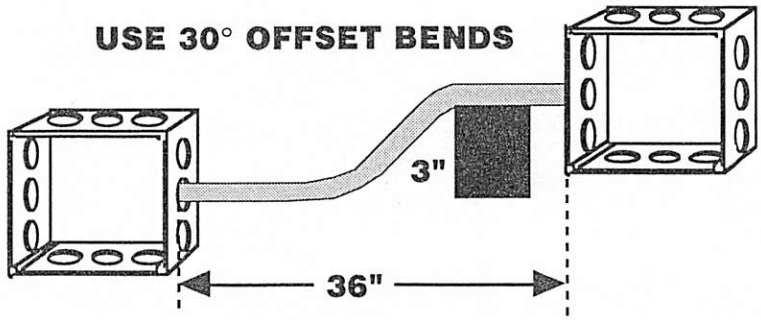
Sighting down the conduit and being careful not to turn the conduit will eliminate dog-legs.

1. What is the total length of 1/2" EMT required between the boxes shown below?



ANSWER _____.

2. What is the total length of 1/2" EMT required between the boxes shown below?



ANSWER _____.

3. Four point saddle bends should be used for obstructions over ____ inches in depth.

ANSWER _____.

4. A measurement of 13/16" is decimal ___.

ANSWER _____.

5. A measurement that reads 6 5/16" has ____ millimeters.

ANSWER _____.

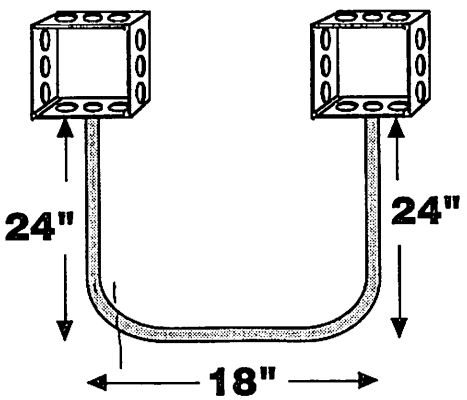
6. The largest size roll-type hand bender for EMT is ____.

ANSWER _____.

7. The "tear drop" symbol on the bender head is the mark for a ____.

ANSWER _____.

8. What is the total length of 1/2" EMT required between the boxes shown below?



ANSWER _____.

9. A standard conduit bend for a 3/4" conduit has a minimum radius to the center of the conduit of ____.

ANSWER _____.

10. The suggested handle length for a 1" hand bender is ____ inches.

ANSWER _____.

11. The take-up for a 3/4" EMT 90° bend is ___ inches.

ANSWER _____.

12. For offsets with 2" depths ____ degree bends are best.

ANSWER _____.

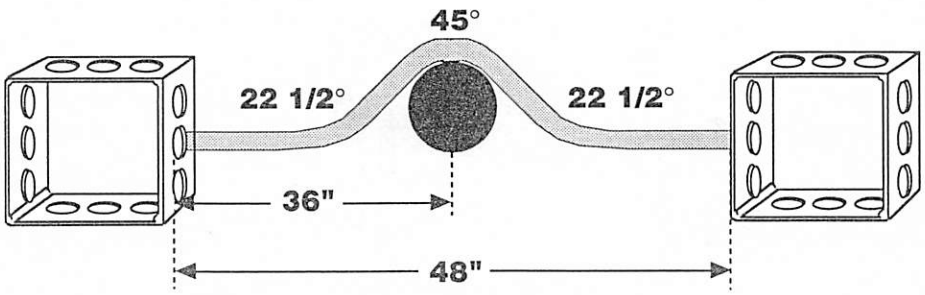
13. The distance between 45° offset bends with a 9" obstruction would be ____ inches.

ANSWER _____.

14. The multiplier of offset depth for 22 1/2° bends is ____.

ANSWER _____.

15. What is the total length of 1/2" EMT required between the boxes shown below that has a 3-point saddle over a 3" obstruction?



ANSWER _____.

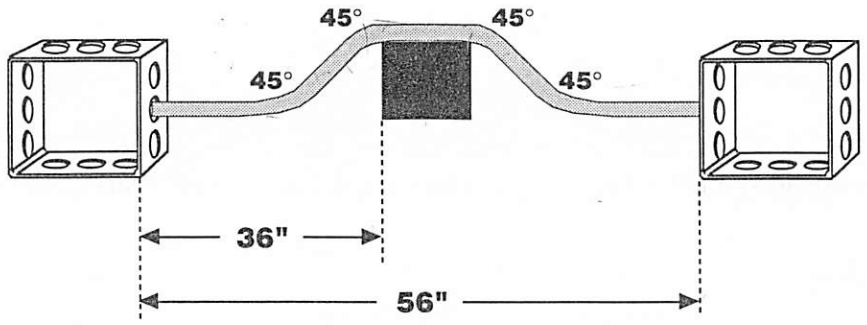
16. For a 3-point saddle bend with a 60° center bend and two 30° bends the shrinkage amount for a 5" obstruction would be ____ inches.

ANSWER _____.

17. A 4-point saddle with 45° offset bends over a 7" obstruction would have a distance between bends of ____ inches.

ANSWER _____.

18. What is the total length of 1/2" EMT required between the boxes shown below that has a 4-point saddle over a 10" obstruction that is 12" wide?



ANSWER _____.

19. The most common used angle for bending offsets in conduit to ease wire pulling is ____ degrees.

ANSWER _____.

20. To make a 90° 12" stub-up bend using 3/4" EMT you would place the pencil mark on the arrow symbol at ___ inches.

ANSWER _____.

21. The "star" symbol on the bender head is the mark for a ____.

ANSWER _____.

22. A decimal of .625 would be ___ inches.

ANSWER _____.

23. The shrinkage amount for a 30° offset bend over a 4" obstruction would be ____ inches.

ANSWER _____.

24. For a 3-point saddle with a 45° center bend and two 22 1/2° bends over a 4" obstruction, you would make the outside pencil marks ____ inches from the new center mark.

ANSWER _____.

25. For a 3-point saddle with a 60° center bend and two 30° bends over a 6" obstruction, you would make the outside pencil marks ____ inches from the new center mark.

ANSWER _____.

26. The 90° gain for a 1" EMT in a stub-up bend of 12" would be ____ inches.

ANSWER _____.

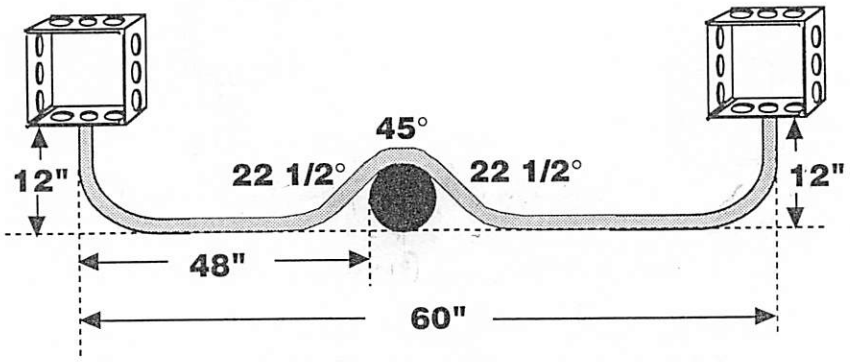
27. A 1/2" EMT has a ____ shrinkage per inch for a small offset of 10°.

ANSWER _____.

28. The "arrow" symbol on the bender head is the mark most commonly used for a ____.

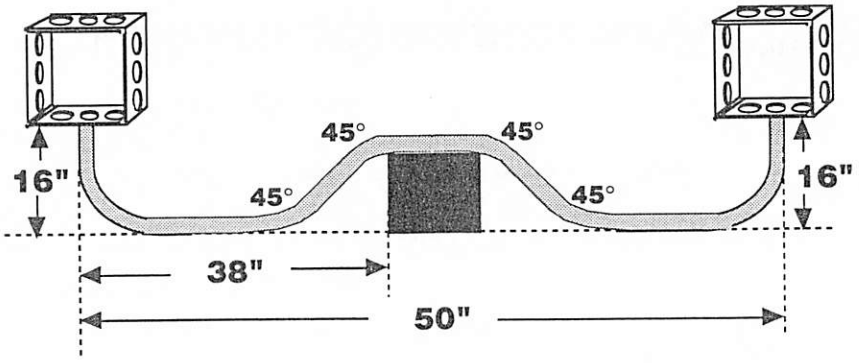
ANSWER _____.

29. What is the total length of 1/2" EMT required between the boxes shown below that has a 3-point saddle over a 2" obstruction?



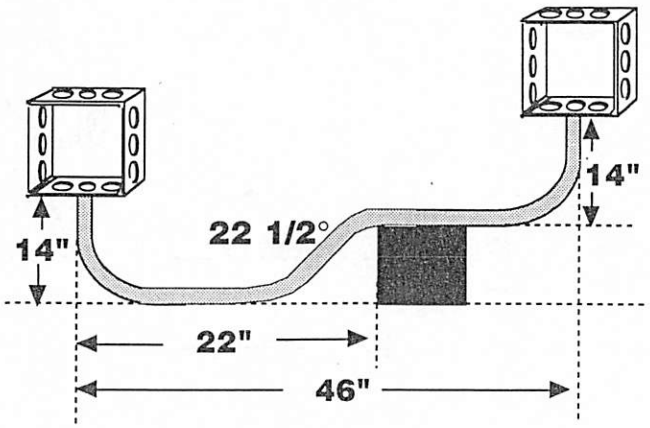
ANSWER _____.

30. What is the total length of 1/2" EMT required between the boxes shown below that has a 4-point saddle over a 7" obstruction that is 10" wide?



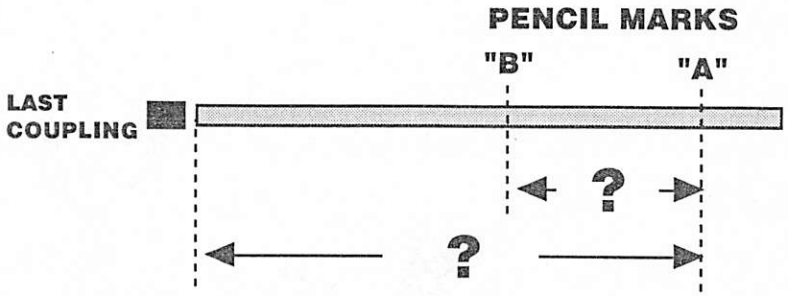
ANSWER _____.

31. What is the total length of 3/4" EMT required between the boxes shown below that has 22 1/2° offset bends over a 4" obstruction?



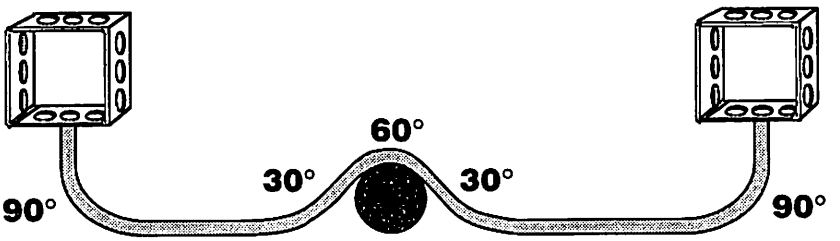
ANSWER _____.

32. A 6" obstruction is 41" from the last coupling. Using 3/4" EMT with 45° offsets you would put pencil mark "A" at ____ inches and pencil mark "B" at ____ inches from mark "A".



ANSWER _____ and _____.

33. The Code allows a total of 360° in a run of conduit between boxes. Does the sketch below violate this Code rule?



ANSWER _____.

34. A measurement of 17/32" would be ____ decimal and ____ millimeters.

ANSWER _____ and _____.

35. A 3-point saddle bend over a 7" obstruction using a 60° center bend and two 30° bends would have the new center pencil mark moved forward ____ inches due to the amount of shrinkage.

ANSWER _____.

36. The take-up for a 1" EMT 90° bend is ___ inches.

ANSWER _____.

37. If the back to back bends are ***too close together***, then reverse the bender and make a stub-up bend. Now deduct 5" (127mm) for 1/2" EMT and put your pencil mark on the ____ symbol for a stub-up bend.

ANSWER _____.

38. Some refer to precision bending, with conduit bending you can only expect accuracy to be within ____ inch.

ANSWER _____.

39. Condulet fittings such as LL's, LR's, and LB's are used mostly to ____.

ANSWER _____.

40. Unlike the 90° stub-up bend that is measured over-all, the offset bend is measured ____.

ANSWER _____.

41. The only time we need to be concerned about the ***gain*** of a conduit is when installing ***rigid*** conduit and you want to ____.

ANSWER _____.

42. The fewer number of conduit fittings used in the raceway system the more ___ the ____ ____ will be if you're using the metal conduit as the grounding conductor.

ANSWER _____.

43. The 90° gain for a 3/4" EMT in a stub-up bend of 8" would be ____ inches.

ANSWER _____.

44. A standard 1/2" conduit bend has a minimum radius to center of conduit of ____ inches.

ANSWER _____.

45. The Code requires conduit to be securely fastened in place at least every ____ feet and within ____ feet of each box, conduit body, or other tubing termination.

ANSWER _____.

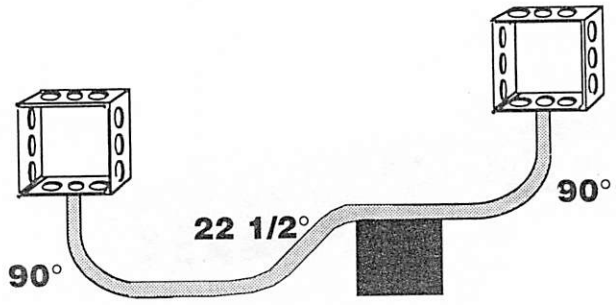
46. When bending an offset going towards an object the length of conduit will ____due to this detour and the object.

ANSWER _____.

47. The distance between bends for 22 1/2° bends with a 2" obstruction would be ____ inches.

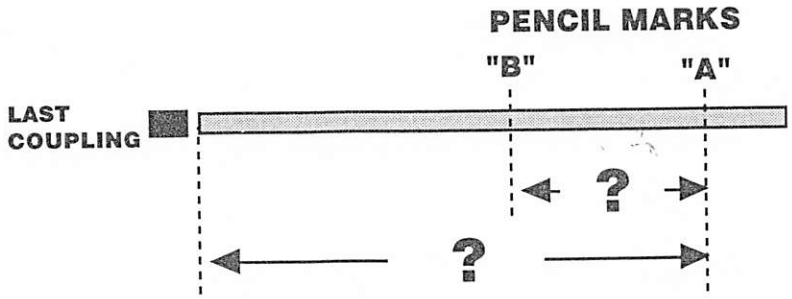
ANSWER _____.

48. The total degree of bends in the conduit run shown below is ____ degrees.



ANSWER _____.

49. A 4" obstruction is 30" from the last coupling. Using 1/2" EMT with 30° offsets you would put pencil mark "A" at ____ inches and pencil mark "B" at ____ inches from mark "A".



ANSWER _____ and _____.

50. For a 3-point saddle bend with a 45° center bend and two 22 1/2° bends the shrinkage amount for a 3" obstruction would be ____ inches.

ANSWER _____.

ANSWERS