

Section I — +/– Feet & Inches

330

1. $13' 9'' + 16' 7'' =$

5. $10' 8'' + 9' 10'' =$

2. $8' 11'' + 16' 3'' =$

6. $9' 3'' - 2' 9'' =$

3. $15' 4'' - 11' 10'' =$

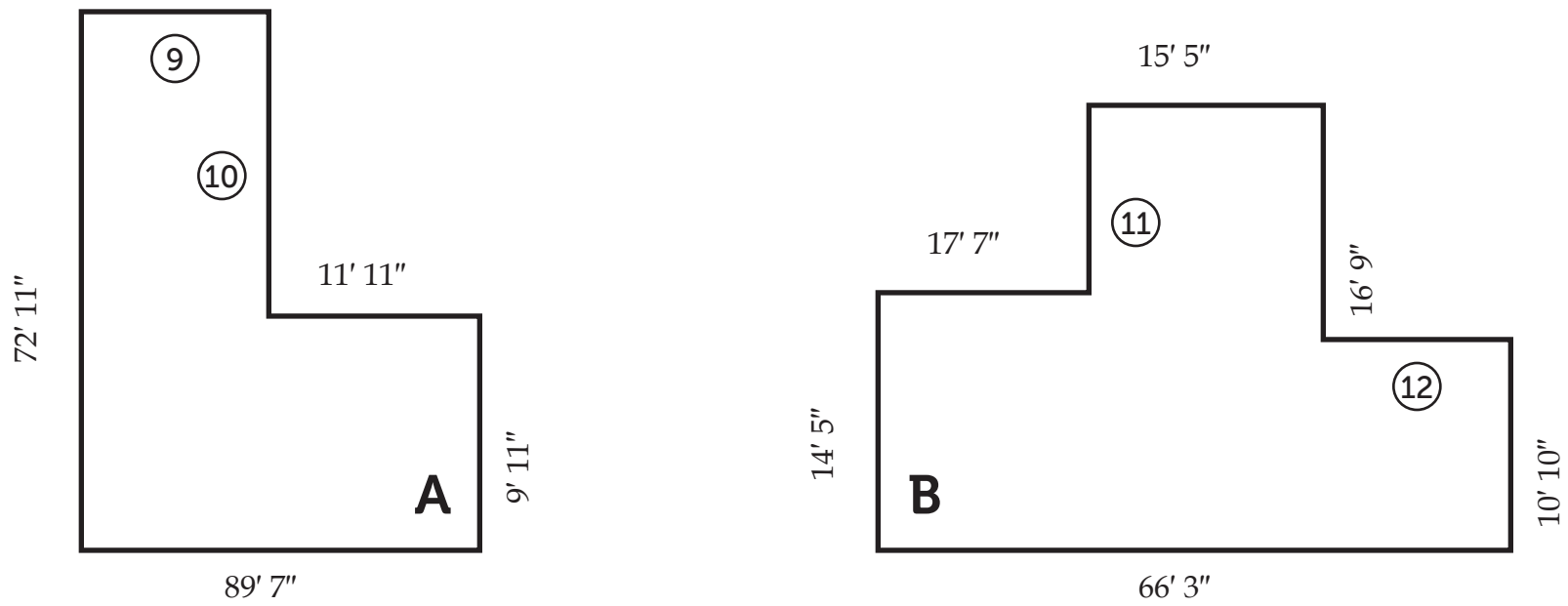
7. $11' 1'' + 18' 11'' =$

4. $18' 5'' + 10' 4'' =$

8. $9' 2'' - 6' 10'' =$

Section II — Find the Missing Side & Perimeter

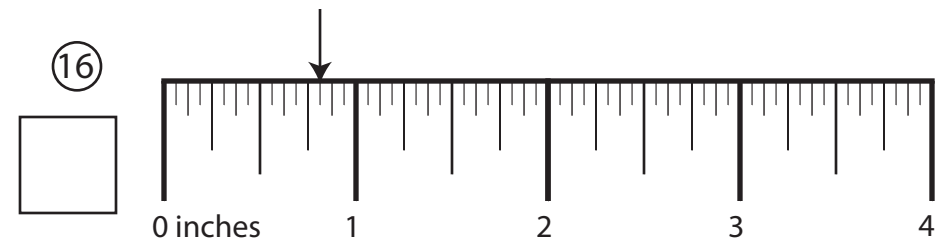
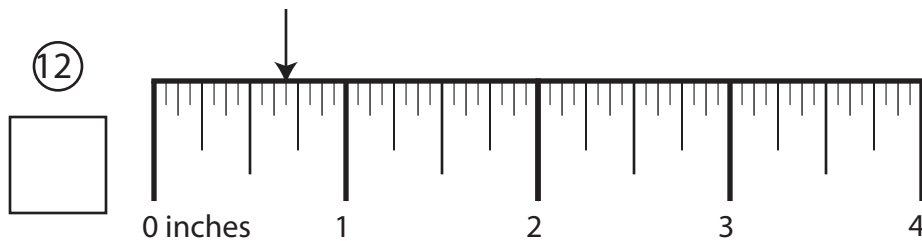
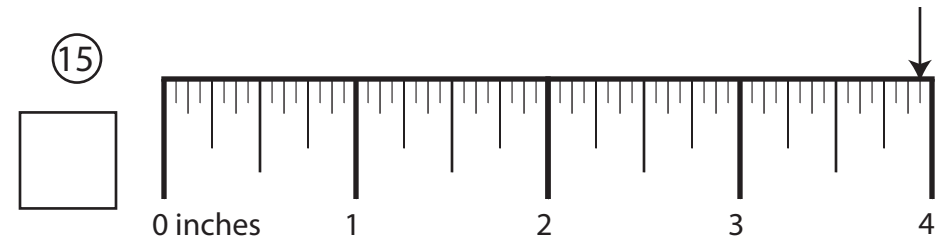
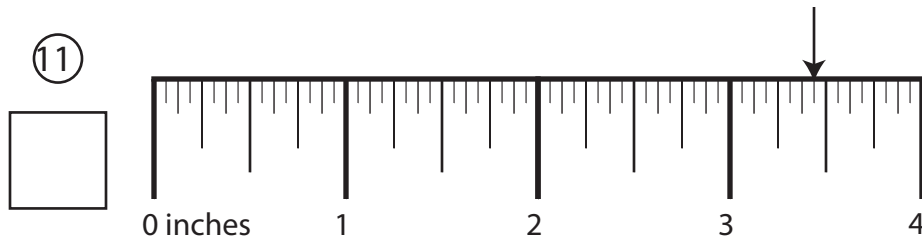
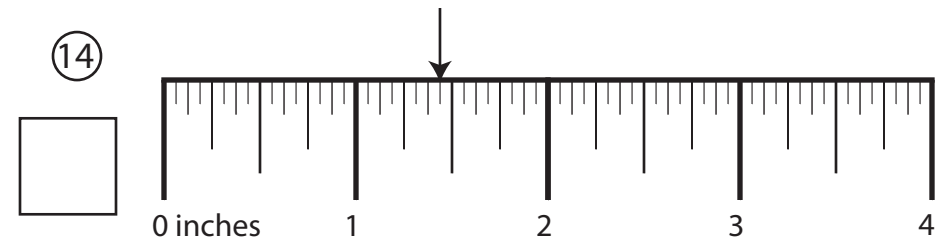
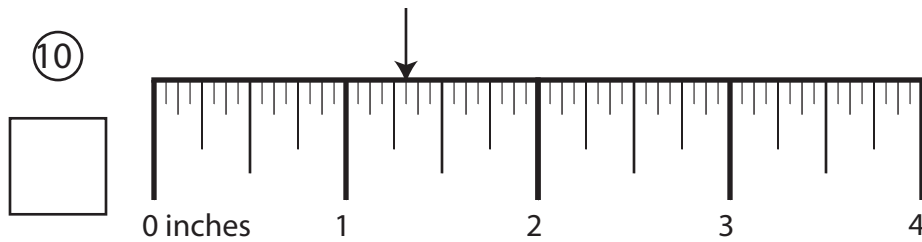
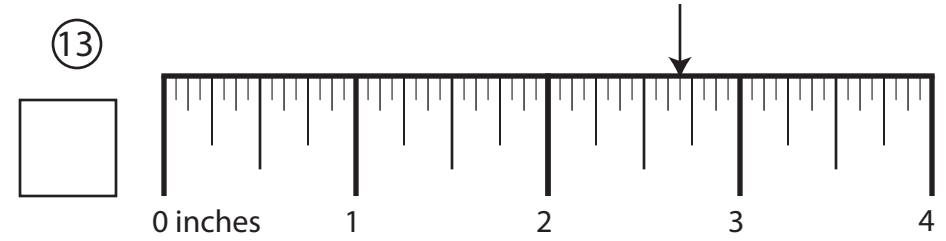
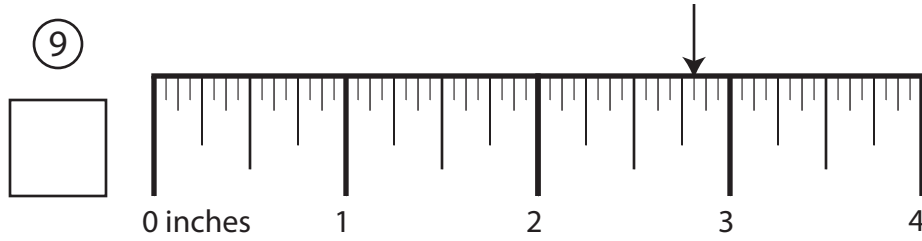
330



Side	Length	Side	Length	Shape	Perimeter
9	_____	11	_____	A	13 _____
10	_____	12	_____	B	14 _____

Section III — Ruler Measurements

330



Section IV — More/Less Than

330

23. What is $\frac{1}{4}$ more than $5\frac{5}{16}$? 27. What is $\frac{1}{4}$ more than $2\frac{1}{16}$?
24. What is $\frac{1}{4}$ less than $3\frac{3}{8}$? 28. What is $\frac{1}{16}$ less than $2\frac{1}{4}$?
25. What is $\frac{1}{8}$ less than $5\frac{3}{8}$? 29. What is $\frac{1}{4}$ less than $1\frac{1}{2}$?
26. What is $\frac{1}{16}$ less than $3\frac{1}{2}$? 30. What is $\frac{3}{16}$ more than $3\frac{1}{4}$?

Section V — Nail Penetration & Screw Hole Bits

330

How far will a ...

What drill bit do you need to drill a ...

[Remember, # or letter only, except 27/64, 14/32, 29/64]

31. 9 common gauge nail penetrate a 3" dry girder?

35. countersink hole for a 20 gauge screw?

32. 8 box gauge nail penetrate a 2 ½" dry rafter?

36. countersink hole for a 1 gauge screw?

33. 20 penny nail penetrate a 2 ½" dry girder?

37. pilot hole for a 18 gauge screw?

34. 50 penny nail penetrate a 5/8" green girder?

38. countersink hole for a 16 gauge screw?

Section VI — **Math** Calculations**330**

39. Ether cycle, 1110 (lb/hr) flowrate, outside is 61°F, inside 90°F?
40. How many mmBTUs are generated by running a CGi-25 for 6 hours?
41. How many mmBTUs are generated by burning 201 pounds of Sugar Maple?
42. Decane cycle, 1321 (lb/hr) flowrate, outside is 65°F, inside 60°F?
43. Room A's Wall #4, made of Cotton Wool insulation, if inside is 58°F and outside is 4°F?
44. How many mmBTUs are generated by running a GV90+4 for 8 months?
45. How many pounds of CO₂ are released by burning 174 pounds of White Oak?
46. Ammonia, 1760°F cycle, 744 (lb/hr) flowrate, outside is 54°F, inside 81°F?

Section VI — **Math** Calculations**330**

47. Ammonia, 104°F cycle, 554 (lb/hr) flowrate, outside is 50°F, inside 47°F?
51. How many mmBTUs are generated by running a AB-80H for 1 days?
48. How many pounds of CO₂ are released by burning 309 pounds of Basswood?
52. Alcohol, propyl cycle, 1393 (lb/hr) flowrate, outside is 58°F, inside 40°F?
49. Dodecane cycle, 524 (lb/hr) flowrate, outside is 55°F, inside 49°F?
53. Room A's Wall #2, made of Polycarbonate, if inside is 58°F and outside is 81°F?
50. Room B's 4 Walls, made of Brick, insulating, if inside is 84°F and outside is 48°F?
54. Carbon Tetrachloride cycle, 1005 (lb/hr) flowrate, outside is 56°F, inside 51°F?

Section VII — Blueprint Calculations

330

55. Shape C, Scale = 32, brick job. 59. Shape G, Scale = 15, pipe job.

56. Shape B, Scale = 35, molding job. 60. Shape R, Scale = 8, molding job.

57. Shape B, Scale = 48, baseboard job. 61. Shape R, Scale = 24, panel job.

58. Shape H, Scale = 30, caulking job. 62. Shape O, Scale = 32, panel job.