

## Section I — +/– Feet &amp; Inches

**392**

---

1.  $11' 6'' + 18' 2'' =$

5.  $11' 8'' - 2' 9'' =$

2.  $14' 5'' + 8' 3'' =$

6.  $11' 4'' - 8' 2'' =$

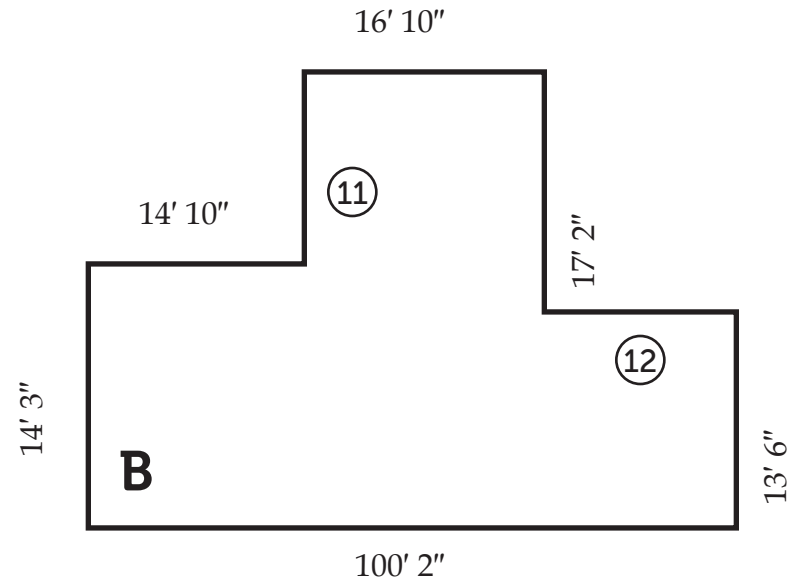
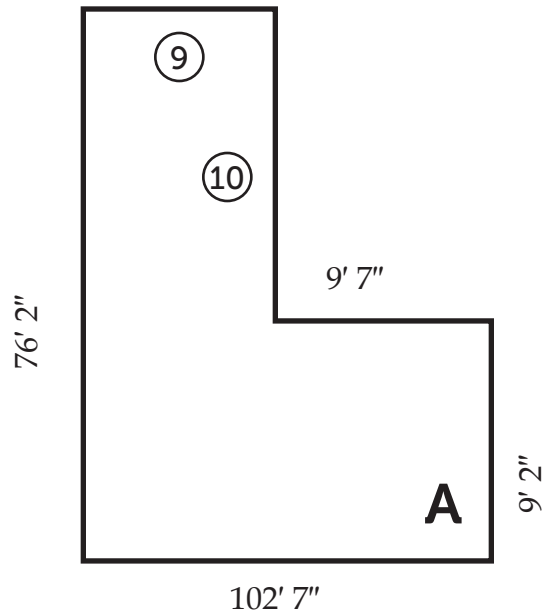
3.  $10' 9'' - 10' 6'' =$

7.  $17' 2'' - 6' 9'' =$

4.  $10' 11'' - 2' 5'' =$

8.  $17' 6'' + 14' 7'' =$

Section II — Find the Missing Side & Perimeter

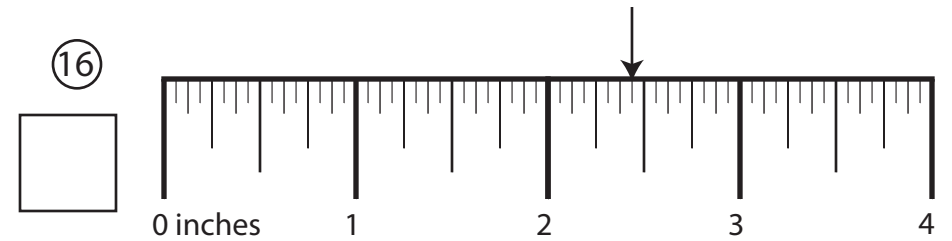
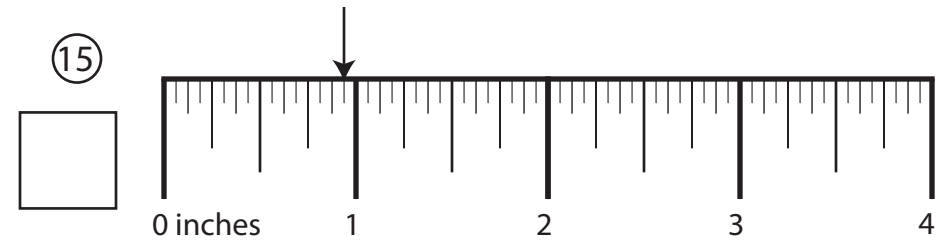
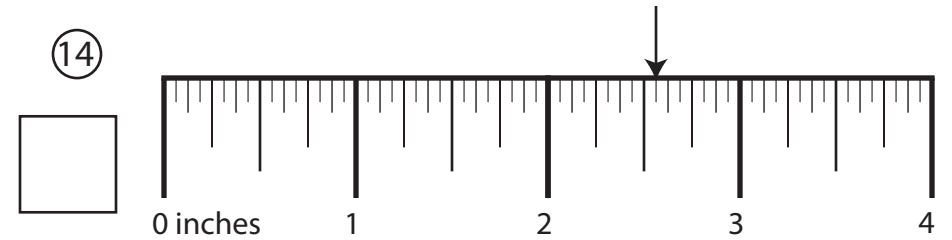
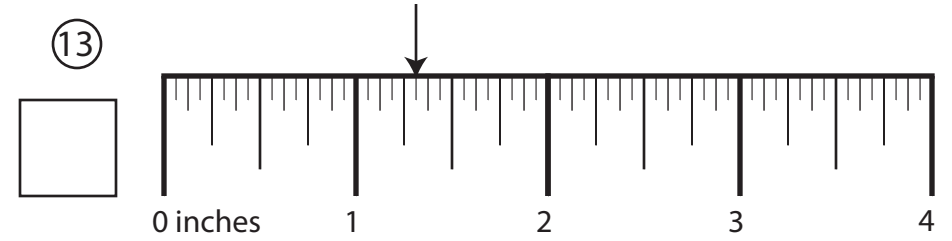
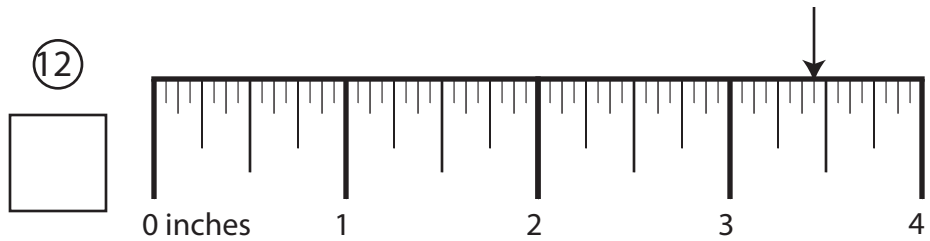
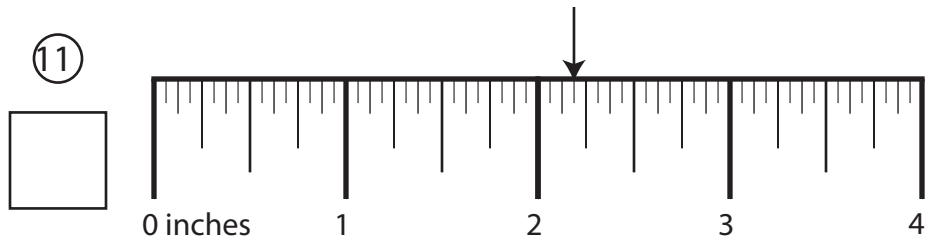
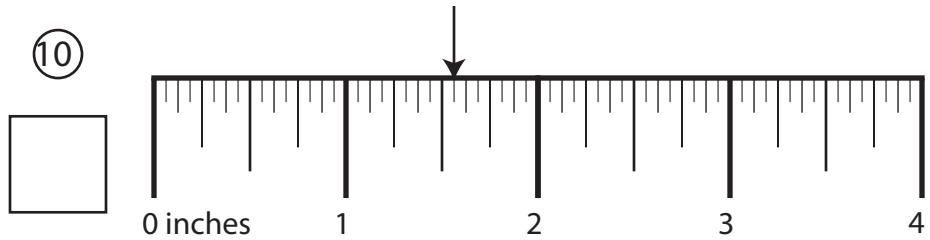
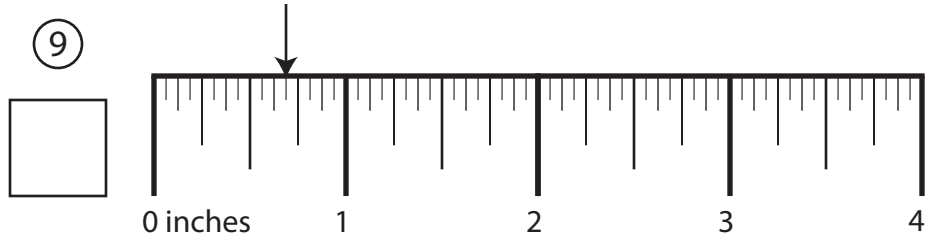


Side	Length	Side	Length	Shape	Perimeter
⑨	_____	⑪	_____	A	⑬ _____
⑩	_____	⑫	_____	B	⑭ _____

### Section III – Ruler Measurements

392

---



## Section IV – More/Less Than

**392**

---

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

## Section V — Nail Penetration &amp; Screw Hole Bits

---

**392***How far will a ...*

31. 60 penny nail penetrate a 4" dry plank?

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

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

35. countersink hole for a 20 gauge screw?

32. 9 penny nail penetrate a 1 ¼" dry timber?

36. clearance hole for a 4 gauge screw?

33. 14 common gauge nail penetrate a 1 ½" green board?

37. countersink hole for a 3 gauge screw?

34. 6 common gauge nail penetrate a 4 ½" dry pole?

38. pilot hole for a 20 gauge screw?

Section VI – **Math** Calculations**392**

---

39. Propyl Alcohol cycle, 833 (lb/hr) flowrate, outside is 79°F, inside 65°F?
40. How many mmBTUs are generated by burning 255 pounds of Aspen?
41. Hexane cycle, 570 (lb/hr) flowrate, outside is 44°F, inside 74°F?
42. How many pounds of CO<sub>2</sub> are released by burning 306 pounds of Beech?
43. How many mmBTUs are generated by burning 345 pounds of Aspen?
44. How many pounds of CO<sub>2</sub> are released by burning heating oil (No. 2) for 10 weeks in a EVG 399?
45. Shape M, Scale = 15, brick job.
46. Shape O, Scale = 24, baseboard job.

Section VI – **Math** Calculations**392**

---

47. Shape B, Scale = 36, pipe job.

51. Ethylene glycol cycle, 1289 (lb/hr) flowrate, outside is 74°F, inside 64°F?

48. How many pounds of CO<sub>2</sub> are released by burning residual fuel oil (No. 6) for 3 hours in a CGa-5?

52. n-Butane, 320°F cycle, 1030 (lb/hr) flowrate, outside is 44°F, inside 83°F?

49. Shape B, Scale = 35, caulking job.

53. How many mmBTUs are generated by running a EVG 110 for 6 weeks?

50. How many mmBTUs are generated by burning 324 pounds of White Oak?

54. Shape N, Scale = 15, panel job.

## Section VII – Blueprint Calculations

**392**

---

55. Shape A, Scale = 48, pipe job.

59. Shape H, Scale = 36, wire job.

56. Shape A, Scale = 50, paint job.

60. Shape R, Scale = 8, tile job.

57. Shape D, Scale = 8, caulking job.

61. Shape R, Scale = 24, pipe job.

58. Shape I, Scale = 50, carpet job.

62. Shape O, Scale = 24, tile job.