

Missing Numbers in Equations (A)

What value does each shape represent?

$$\blacklozenge + 9 = 11 \quad \ast + 9 = 18 \quad \odot + 2 = 9 \quad \heartsuit + 4 = 8$$

$$\blacksquare + 2 = 6 \quad 7 + \triangledown = 16 \quad \odot + 2 = 5 \quad 4 + \boxtimes = 11$$

$$\odot + 5 = 6 \quad \Delta + 2 = 5 \quad \diamond + 7 = 11 \quad 4 + \square = 8$$

$$8 + \Delta = 11 \quad \square + 5 = 9 \quad 4 + \square = 7 \quad 7 + \square = 11$$

$$5 + \odot = 11 \quad 4 + \blacksquare = 6 \quad \blacksquare + 1 = 6 \quad \boxtimes + 5 = 8$$

$$\boxtimes + 5 = 7 \quad \blacksquare + 5 = 7 \quad 9 + \blacksquare = 13 \quad 2 + \diamondsuit = 7$$

$$4 + \square = 9 \quad \triangledown + 8 = 11 \quad \square + 3 = 4 \quad 5 + \blacksquare = 10$$

$$1 + \diamondsuit = 2 \quad \square + 1 = 6 \quad \blacksquare + 9 = 16 \quad \ast + 2 = 10$$

$$1 + \ast = 2 \quad \spadesuit + 3 = 10 \quad \blacksquare + 3 = 7 \quad 7 + \blacklozenge = 16$$

$$\square + 5 = 12 \quad \square + 3 = 8 \quad \odot + 1 = 5 \quad \Delta + 6 = 9$$

Missing Numbers in Equations (A) Answers

What value does each shape represent?

$$\blacklozenge + 9 = 11$$

$$\blacklozenge = 2$$

$$\ast + 9 = 18$$

$$\ast = 9$$

$$\odot + 2 = 9$$

$$\odot = 7$$

$$\heartsuit + 4 = 8$$

$$\heartsuit = 4$$

$$\blacksquare + 2 = 6$$

$$\blacksquare = 4$$

$$7 + \triangledown = 16$$

$$\triangledown = 9$$

$$\odot + 2 = 5$$

$$\odot = 3$$

$$4 + \boxtimes = 11$$

$$\boxtimes = 7$$

$$\odot + 5 = 6$$

$$\odot = 1$$

$$\Delta + 2 = 5$$

$$\Delta = 3$$

$$\square + 7 = 11$$

$$\square = 4$$

$$4 + \vartriangle = 8$$

$$\vartriangle = 4$$

$$8 + \Delta = 11$$

$$\Delta = 3$$

$$\square + 5 = 9$$

$$\square = 4$$

$$4 + \vartriangle = 7$$

$$\vartriangle = 3$$

$$7 + \vartriangle = 11$$

$$\vartriangle = 4$$

$$5 + \odot = 11$$

$$\odot = 6$$

$$4 + \blacksquare = 6$$

$$\blacksquare = 2$$

$$\blacksquare + 1 = 6$$

$$\blacksquare = 5$$

$$\boxtimes + 5 = 8$$

$$\boxtimes = 3$$

$$\boxtimes + 5 = 7$$

$$\boxtimes = 2$$

$$\square + 5 = 7$$

$$\square = 2$$

$$9 + \blacksquare = 13$$

$$\blacksquare = 4$$

$$2 + \diamondsuit = 7$$

$$\diamondsuit = 5$$

$$4 + \square = 9$$

$$\square = 5$$

$$\triangledown + 8 = 11$$

$$\triangledown = 3$$

$$\square + 3 = 4$$

$$\square = 1$$

$$5 + \blacksquare = 10$$

$$\blacksquare = 5$$

$$1 + \diamondsuit = 2$$

$$\diamondsuit = 1$$

$$\square + 1 = 6$$

$$\square = 5$$

$$\square + 9 = 16$$

$$\square = 7$$

$$\ast + 2 = 10$$

$$\ast = 8$$

$$1 + \ast = 2$$

$$\ast = 1$$

$$\spadesuit + 3 = 10$$

$$\spadesuit = 7$$

$$\blacksquare + 3 = 7$$

$$\blacksquare = 4$$

$$7 + \blacklozenge = 16$$

$$\blacklozenge = 9$$

$$\vartriangle + 5 = 12$$

$$\vartriangle = 7$$

$$\square + 3 = 8$$

$$\square = 5$$

$$\odot + 1 = 5$$

$$\odot = 4$$

$$\Delta + 6 = 9$$

$$\Delta = 3$$

Missing Numbers in Equations (B)

What value does each shape represent?

$$\square + 3 = 10$$

$$6 + \diamond = 8$$

$$\bullet + 2 = 6$$

$$5 + \text{X} = 6$$

$$\text{X} + 4 = 12$$

$$3 + \square = 9$$

$$5 + \blacksquare = 10$$

$$3 + \odot = 10$$

$$\diamond + 3 = 7$$

$$2 + \blacksquare = 9$$

$$\Delta + 2 = 6$$

$$1 + \star = 9$$

$$\star + 4 = 11$$

$$\square + 2 = 9$$

$$\odot + 8 = 12$$

$$1 + \triangle = 5$$

$$6 + \spadesuit = 7$$

$$4 + \diamond = 8$$

$$8 + \blacksquare = 14$$

$$\blacklozenge + 2 = 9$$

$$\triangle + 9 = 18$$

$$5 + \heartsuit = 8$$

$$\blacklozenge + 9 = 11$$

$$9 + \diamondsuit = 18$$

$$9 + \blacklozenge = 16$$

$$\blacksquare + 4 = 6$$

$$2 + \square = 4$$

$$\triangle + 2 = 10$$

$$3 + \star = 10$$

$$1 + \text{X} = 6$$

$$\blacksquare + 9 = 10$$

$$9 + \triangledown = 17$$

$$4 + \square = 9$$

$$3 + \square = 4$$

$$\blacksquare + 3 = 8$$

$$\blacklozenge + 7 = 13$$

$$3 + \star = 7$$

$$5 + \blacklozenge = 13$$

$$\blacksquare + 1 = 6$$

$$9 + \triangle = 16$$

Missing Numbers in Equations (B)

What value does each shape represent?

$$\square + 3 = 10$$

$$\square = 7$$

$$6 + \diamond = 8$$

$$\diamond = 2$$

$$\odot + 2 = 6$$

$$\odot = 4$$

$$5 + \mathbb{X} = 6$$

$$\mathbb{X} = 1$$

$$\mathbb{X} + 4 = 12$$

$$\mathbb{X} = 8$$

$$3 + \square = 9$$

$$\square = 6$$

$$5 + \blacksquare = 10$$

$$\blacksquare = 5$$

$$3 + \odot = 10$$

$$\odot = 7$$

$$\diamond + 3 = 7$$

$$\diamond = 4$$

$$2 + \blacksquare = 9$$

$$\blacksquare = 7$$

$$\Delta + 2 = 6$$

$$\Delta = 4$$

$$1 + \star = 9$$

$$\star = 8$$

$$\star + 4 = 11$$

$$\star = 7$$

$$\square + 2 = 9$$

$$\square = 7$$

$$\odot + 8 = 12$$

$$\odot = 4$$

$$1 + \square = 5$$

$$\square = 4$$

$$6 + \spadesuit = 7$$

$$\spadesuit = 1$$

$$4 + \diamond = 8$$

$$\diamond = 4$$

$$8 + \blacksquare = 14$$

$$\blacksquare = 6$$

$$\blacklozenge + 2 = 9$$

$$\blacklozenge = 7$$

$$\square + 9 = 18$$

$$\square = 9$$

$$5 + \heartsuit = 8$$

$$\heartsuit = 3$$

$$\blacklozenge + 9 = 11$$

$$\blacklozenge = 2$$

$$9 + \triangle = 18$$

$$\triangle = 9$$

$$9 + \blacklozenge = 16$$

$$\blacklozenge = 7$$

$$\blacksquare + 4 = 6$$

$$\blacksquare = 2$$

$$2 + \square = 4$$

$$\square = 2$$

$$\square + 2 = 10$$

$$\square = 8$$

$$3 + \star = 10$$

$$\star = 7$$

$$1 + \mathbb{X} = 6$$

$$\mathbb{X} = 5$$

$$\blacksquare + 9 = 10$$

$$\blacksquare = 1$$

$$9 + \triangledown = 17$$

$$\triangledown = 8$$

$$4 + \square = 9$$

$$\square = 5$$

$$3 + \square = 4$$

$$\square = 1$$

$$\blacksquare + 3 = 8$$

$$\blacksquare = 5$$

$$\blacklozenge + 7 = 13$$

$$\blacklozenge = 6$$

$$3 + \star = 7$$

$$\star = 4$$

$$5 + \blacklozenge = 13$$

$$\blacklozenge = 8$$

$$\blacksquare + 1 = 6$$

$$\blacksquare = 5$$

$$9 + \square = 16$$

$$\square = 7$$

Missing Numbers in Equations (C)

What value does each shape represent?

$$9 + \circlearrowleft = 14 \quad \text{※} + 7 = 11 \quad 4 + \blacklozenge = 12 \quad 4 + \blacksquare = 7$$

$$3 + \star = 10 \quad 4 + \blacksquare = 9 \quad \blacksquare + 3 = 11 \quad 5 + \square = 7$$

$$4 + \star = 13 \quad 2 + \star = 10 \quad 2 + \odot = 7 \quad 8 + \odot = 11$$

$$5 + \blacksquare = 8 \quad 9 + \square = 18 \quad \blacksquare + 3 = 5 \quad 4 + \Delta = 12$$

$$3 + \odot = 4 \quad \square + 6 = 7 \quad 3 + \square = 12 \quad 8 + \triangle = 17$$

$$\text{※} + \star = 9 \quad 3 + \text{※} = 7 \quad \star + 4 = 6 \quad \square + 9 = 13$$

$$\text{※} + 3 = 11 \quad \text{※} + 9 = 16 \quad \circlearrowleft + 4 = 9 \quad 5 + \star = 14$$

$$9 + \nabla = 15 \quad 1 + \blacksquare = 8 \quad \square + 4 = 6 \quad \blacksquare + 2 = 8$$

$$3 + \odot = 9 \quad 7 + \mathbb{X} = 12 \quad \square + 2 = 8 \quad \star + 5 = 10$$

$$\nabla + 8 = 11 \quad \blacksquare + 8 = 17 \quad 1 + \Delta = 6 \quad 8 + \blacksquare = 9$$

Missing Numbers in Equations (C)

What value does each shape represent?

$$9 + \bigcirc = 14$$

$$\bigcirc = 5$$

$$\divideontimes + 7 = 11$$

$$\divideontimes = 4$$

$$4 + \blacklozenge = 12$$

$$\blacklozenge = 8$$

$$4 + \blacksquare = 7$$

$$\blacksquare = 3$$

$$3 + \star = 10$$

$$\star = 7$$

$$4 + \blacksquare = 9$$

$$\blacksquare = 5$$

$$\blacksquare + 3 = 11$$

$$\blacksquare = 8$$

$$5 + \square = 7$$

$$\square = 2$$

$$4 + \star = 13$$

$$\star = 9$$

$$2 + \star = 10$$

$$\star = 8$$

$$2 + \odot = 7$$

$$\odot = 5$$

$$8 + \odot = 11$$

$$\odot = 3$$

$$5 + \blacksquare = 8$$

$$\blacksquare = 3$$

$$9 + \square = 18$$

$$\square = 9$$

$$\blacksquare + 3 = 5$$

$$\blacksquare = 2$$

$$4 + \Delta = 12$$

$$\Delta = 8$$

$$3 + \odot = 4$$

$$\odot = 1$$

$$\square + 6 = 7$$

$$\square = 1$$

$$3 + \square = 12$$

$$\square = 9$$

$$8 + \square = 17$$

$$\square = 9$$

$$8 + \star = 9$$

$$\star = 1$$

$$3 + \divideontimes = 7$$

$$\divideontimes = 4$$

$$\star + 4 = 6$$

$$\star = 2$$

$$\square + 9 = 13$$

$$\square = 4$$

$$\divideontimes + 3 = 11$$

$$\divideontimes = 8$$

$$\divideontimes + 9 = 16$$

$$\divideontimes = 7$$

$$\bigcirc + 4 = 9$$

$$\bigcirc = 5$$

$$5 + \star = 14$$

$$\star = 9$$

$$9 + \nabla = 15$$

$$\nabla = 6$$

$$1 + \blacksquare = 8$$

$$\blacksquare = 7$$

$$\square + 4 = 6$$

$$\square = 2$$

$$\blacksquare + 2 = 8$$

$$\blacksquare = 6$$

$$3 + \odot = 9$$

$$\odot = 6$$

$$7 + \mathbb{X} = 12$$

$$\mathbb{X} = 5$$

$$\square + 2 = 8$$

$$\square = 6$$

$$\star + 5 = 10$$

$$\star = 5$$

$$\nabla + 8 = 11$$

$$\nabla = 3$$

$$\blacksquare + 8 = 17$$

$$\blacksquare = 9$$

$$1 + \Delta = 6$$

$$\Delta = 5$$

$$8 + \blacksquare = 9$$

$$\blacksquare = 1$$

Missing Numbers in Equations (D)

What value does each shape represent?

$$4 + \square = 10$$

$$\star + 3 = 7$$

$$\square + 7 = 15$$

$$\blacksquare + 8 = 11$$

$$3 + \square = 9$$

$$\blacklozenge + 6 = 15$$

$$\star + 5 = 13$$

$$5 + \square = 12$$

$$\odot + 6 = 14$$

$$\spadesuit + 1 = 8$$

$$\spadesuit + 5 = 10$$

$$\heartsuit + 7 = 13$$

$$7 + \square = 15$$

$$\odot + 7 = 15$$

$$\lozenge + 7 = 12$$

$$2 + \ast = 4$$

$$9 + \blacklozenge = 18$$

$$\square + 2 = 9$$

$$9 + \ast = 12$$

$$3 + \square = 7$$

$$\square + 4 = 10$$

$$1 + \nabla = 8$$

$$\spadesuit + 3 = 5$$

$$\square + 6 = 10$$

$$\times + 1 = 3$$

$$\square + 8 = 17$$

$$5 + \odot = 11$$

$$\square + 9 = 17$$

$$5 + \vartriangle = 7$$

$$\lozenge + 2 = 9$$

$$\blacksquare + 4 = 8$$

$$\lozenge + 1 = 3$$

$$\times + 5 = 8$$

$$\nabla + 5 = 9$$

$$\ast + 8 = 11$$

$$3 + \square = 11$$

$$7 + \Delta = 10$$

$$\times + 3 = 11$$

$$5 + \odot = 12$$

$$\times + 5 = 10$$

Missing Numbers in Equations (D)

What value does each shape represent?

$$4 + \square = 10$$

$$\square = 6$$

$$\star + 3 = 7$$

$$\star = 4$$

$$\square + 7 = 15$$

$$\square = 8$$

$$\blacksquare + 8 = 11$$

$$\blacksquare = 3$$

$$3 + \square = 9$$

$$\square = 6$$

$$\blacklozenge + 6 = 15$$

$$\blacklozenge = 9$$

$$\star + 5 = 13$$

$$\star = 8$$

$$5 + \square = 12$$

$$\square = 7$$

$$\odot + 6 = 14$$

$$\odot = 8$$

$$\spadesuit + 1 = 8$$

$$\spadesuit = 7$$

$$\spadesuit + 5 = 10$$

$$\spadesuit = 5$$

$$\heartsuit + 7 = 13$$

$$\heartsuit = 6$$

$$7 + \square = 15$$

$$\square = 8$$

$$\odot + 7 = 15$$

$$\odot = 8$$

$$\lozenge + 7 = 12$$

$$\lozenge = 5$$

$$2 + \ast = 4$$

$$\ast = 2$$

$$9 + \blacklozenge = 18$$

$$\blacklozenge = 9$$

$$\square + 2 = 9$$

$$\square = 7$$

$$9 + \ast = 12$$

$$\ast = 3$$

$$3 + \square = 7$$

$$\square = 4$$

$$\square + 4 = 10$$

$$\square = 6$$

$$1 + \triangledown = 8$$

$$\triangledown = 7$$

$$\spadesuit + 3 = 5$$

$$\spadesuit = 2$$

$$\square + 6 = 10$$

$$\square = 4$$

$$\times + 1 = 3$$

$$\times = 2$$

$$\square + 8 = 17$$

$$\square = 9$$

$$5 + \odot = 11$$

$$\odot = 6$$

$$\square + 9 = 17$$

$$\square = 8$$

$$5 + \triangle = 7$$

$$\triangle = 2$$

$$\lozenge + 2 = 9$$

$$\lozenge = 7$$

$$\blacksquare + 4 = 8$$

$$\blacksquare = 4$$

$$\lozenge + 1 = 3$$

$$\lozenge = 2$$

$$\times + 5 = 8$$

$$\times = 3$$

$$\triangledown + 5 = 9$$

$$\triangledown = 4$$

$$\ast + 8 = 11$$

$$\ast = 3$$

$$3 + \square = 11$$

$$\square = 8$$

$$7 + \Delta = 10$$

$$\Delta = 3$$

$$\times + 3 = 11$$

$$\times = 8$$

$$5 + \odot = 12$$

$$\odot = 7$$

$$\times + 5 = 10$$

$$\times = 5$$

Missing Numbers in Equations (E)

What value does each shape represent?

$$2 + \spadesuit = 8 \quad 2 + \diamondsuit = 11 \quad 6 + \ast = 13 \quad \diamond + 1 = 9$$

$$6 + \spadesuit = 11 \quad 6 + \odot = 10 \quad 1 + \square = 9 \quad 5 + \heartsuit = 6$$

$$4 + \diamondsuit = 13 \quad \Delta + 2 = 7 \quad 5 + \triangle = 11 \quad \square + 8 = 15$$

$$9 + \spadesuit = 10 \quad 4 + \square = 9 \quad 8 + \ast = 12 \quad \Delta + 2 = 4$$

$$2 + \square = 4 \quad 1 + \lozenge = 2 \quad \heartsuit + 2 = 9 \quad \triangle + 2 = 3$$

$$5 + \nabla = 14 \quad 6 + \vartriangle = 10 \quad 5 + \spadesuit = 7 \quad 2 + \blacksquare = 7$$

$$\diamond + 8 = 16 \quad 1 + \blacksquare = 7 \quad \lozenge + 8 = 15 \quad 5 + \lozenge = 13$$

$$8 + \spadesuit = 12 \quad 4 + \square = 7 \quad 8 + \blacksquare = 15 \quad \ast + 6 = 9$$

$$1 + \square = 5 \quad 1 + \odot = 3 \quad \triangle + 2 = 5 \quad \square + 1 = 7$$

$$\heartsuit + 3 = 5 \quad 6 + \square = 12 \quad \ast + 6 = 15 \quad \times + 8 = 11$$

Missing Numbers in Equations (E)

What value does each shape represent?

$$2 + \spadesuit = 8$$

$$\spadesuit = 6$$

$$2 + \diamondsuit = 11$$

$$\diamondsuit = 9$$

$$6 + \ast = 13$$

$$\ast = 7$$

$$\circlearrowleft + 1 = 9$$

$$\circlearrowleft = 8$$

$$6 + \spadesuit = 11$$

$$\spadesuit = 5$$

$$6 + \odot = 10$$

$$\odot = 4$$

$$1 + \square = 9$$

$$\square = 8$$

$$5 + \heartsuit = 6$$

$$\heartsuit = 1$$

$$4 + \diamondsuit = 13$$

$$\diamondsuit = 9$$

$$\Delta + 2 = 7$$

$$\Delta = 5$$

$$5 + \square = 11$$

$$\square = 6$$

$$\square + 8 = 15$$

$$\square = 7$$

$$9 + \spadesuit = 10$$

$$\spadesuit = 1$$

$$4 + \square = 9$$

$$\square = 5$$

$$8 + \ast = 12$$

$$\ast = 4$$

$$\Delta + 2 = 4$$

$$\Delta = 2$$

$$2 + \square = 4$$

$$\square = 2$$

$$1 + \lozenge = 2$$

$$\lozenge = 1$$

$$\heartsuit + 2 = 9$$

$$\heartsuit = 7$$

$$\square + 2 = 3$$

$$\square = 1$$

$$5 + \triangledown = 14$$

$$\triangledown = 9$$

$$6 + \vartriangle = 10$$

$$\vartriangle = 4$$

$$5 + \spadesuit = 7$$

$$\spadesuit = 2$$

$$2 + \blacksquare = 7$$

$$\blacksquare = 5$$

$$\circlearrowleft + 8 = 16$$

$$\circlearrowleft = 8$$

$$1 + \blacksquare = 7$$

$$\blacksquare = 6$$

$$\lozenge + 8 = 15$$

$$\lozenge = 7$$

$$5 + \lozenge = 13$$

$$\lozenge = 8$$

$$8 + \spadesuit = 12$$

$$\spadesuit = 4$$

$$4 + \square = 7$$

$$\square = 3$$

$$8 + \blacksquare = 15$$

$$\blacksquare = 7$$

$$\ast + 6 = 9$$

$$\ast = 3$$

$$1 + \square = 5$$

$$\square = 4$$

$$1 + \odot = 3$$

$$\odot = 2$$

$$\square + 2 = 5$$

$$\square = 3$$

$$\square + 1 = 7$$

$$\square = 6$$

$$\heartsuit + 3 = 5$$

$$\heartsuit = 2$$

$$6 + \square = 12$$

$$\square = 6$$

$$\ast + 6 = 15$$

$$\ast = 9$$

$$\times + 8 = 11$$

$$\times = 3$$

Missing Numbers in Equations (F)

What value does each shape represent?

$$\diamond + 6 = 13 \quad 4 + \odot = 12 \quad \star + 7 = 11 \quad 7 + \diamond = 10$$

$$\square + 9 = 15 \quad \Delta + 6 = 11 \quad \square + 1 = 8 \quad 6 + \square = 15$$

$$2 + \blacksquare = 5 \quad 5 + \star = 10 \quad \blacksquare + 5 = 11 \quad 1 + \odot = 7$$

$$1 + \odot = 7 \quad \nabla + 4 = 10 \quad 5 + \vartriangle = 12 \quad 9 + \square = 11$$

$$\Delta + 8 = 15 \quad \square + 3 = 9 \quad \square + 3 = 12 \quad \square + 3 = 9$$

$$1 + \diamond = 5 \quad \blacksquare + 6 = 15 \quad \odot + 7 = 14 \quad \blacksquare + 9 = 11$$

$$3 + \spadesuit = 6 \quad \vartriangle + 6 = 15 \quad 9 + \heartsuit = 11 \quad 3 + \vartriangle = 4$$

$$\diamond + 5 = 7 \quad \Delta + 9 = 11 \quad 6 + \nabla = 14 \quad \square + 9 = 18$$

$$8 + \blacksquare = 11 \quad 5 + \square = 6 \quad 7 + \clubsuit = 10 \quad 3 + \blacksquare = 12$$

$$\diamond + 4 = 8 \quad 8 + \diamond = 13 \quad 2 + \heartsuit = 11 \quad \diamond + 3 = 12$$

Missing Numbers in Equations (F)

What value does each shape represent?

$$\diamond + 6 = 13$$

$$\diamond = 7$$

$$4 + \odot = 12$$

$$\odot = 8$$

$$\star + 7 = 11$$

$$\star = 4$$

$$7 + \diamond = 10$$

$$\diamond = 3$$

$$\square + 9 = 15$$

$$\square = 6$$

$$\Delta + 6 = 11$$

$$\Delta = 5$$

$$\square + 1 = 8$$

$$\square = 7$$

$$6 + \square = 15$$

$$\square = 9$$

$$2 + \blacksquare = 5$$

$$\blacksquare = 3$$

$$5 + \star = 10$$

$$\star = 5$$

$$\blacksquare + 5 = 11$$

$$\blacksquare = 6$$

$$1 + \odot = 7$$

$$\odot = 6$$

$$1 + \odot = 7$$

$$\odot = 6$$

$$\nabla + 4 = 10$$

$$\nabla = 6$$

$$5 + \square = 12$$

$$\square = 7$$

$$9 + \square = 11$$

$$\square = 2$$

$$\Delta + 8 = 15$$

$$\Delta = 7$$

$$\square + 3 = 9$$

$$\square = 6$$

$$\square + 3 = 12$$

$$\square = 9$$

$$\square + 3 = 9$$

$$\square = 6$$

$$1 + \diamond = 5$$

$$\diamond = 4$$

$$\blacksquare + 6 = 15$$

$$\blacksquare = 9$$

$$\odot + 7 = 14$$

$$\odot = 7$$

$$\blacksquare + 9 = 11$$

$$\blacksquare = 2$$

$$3 + \spadesuit = 6$$

$$\spadesuit = 3$$

$$\square + 6 = 15$$

$$\square = 9$$

$$9 + \heartsuit = 11$$

$$\heartsuit = 2$$

$$3 + \square = 4$$

$$\square = 1$$

$$\diamond + 5 = 7$$

$$\diamond = 2$$

$$\Delta + 9 = 11$$

$$\Delta = 2$$

$$6 + \nabla = 14$$

$$\nabla = 8$$

$$\square + 9 = 18$$

$$\square = 9$$

$$8 + \blacksquare = 11$$

$$\blacksquare = 3$$

$$5 + \square = 6$$

$$\square = 1$$

$$7 + \clubsuit = 10$$

$$\clubsuit = 3$$

$$3 + \blacksquare = 12$$

$$\blacksquare = 9$$

$$\diamond + 4 = 8$$

$$\diamond = 4$$

$$8 + \diamond = 13$$

$$\diamond = 5$$

$$2 + \heartsuit = 11$$

$$\heartsuit = 9$$

$$\diamond + 3 = 12$$

$$\diamond = 9$$

Missing Numbers in Equations (G)

What value does each shape represent?

$$7 + \nabla = 12$$

$$\diamondsuit + 4 = 12$$

$$\square + 2 = 4$$

$$\triangle + 6 = 9$$

$$\square + 3 = 11$$

$$1 + \heartsuit = 9$$

$$\blacksquare + 7 = 15$$

$$5 + \blacksquare = 8$$

$$\square + 1 = 7$$

$$\blacksquare + 2 = 10$$

$$3 + \square = 11$$

$$\square + 1 = 2$$

$$\diamondsuit + 5 = 8$$

$$\nabla + 5 = 7$$

$$\spadesuit + 1 = 7$$

$$\Delta + 8 = 11$$

$$\times + 6 = 10$$

$$8 + \blacksquare = 9$$

$$\heartsuit + 7 = 9$$

$$\blacksquare + 4 = 6$$

$$\odot + 5 = 7$$

$$\ast + 6 = 11$$

$$\ast + 9 = 12$$

$$\heartsuit + 6 = 7$$

$$2 + \diamondsuit = 3$$

$$\circledstar + 7 = 16$$

$$8 + \heartsuit = 12$$

$$7 + \heartsuit = 16$$

$$\ast + 7 = 16$$

$$\times + 5 = 6$$

$$7 + \circlearrowleft = 15$$

$$4 + \blacksquare = 6$$

$$\odot + 5 = 11$$

$$\blacklozenge + 6 = 13$$

$$1 + \heartsuit = 4$$

$$5 + \Delta = 8$$

$$6 + \nabla = 11$$

$$\circledstar + 2 = 8$$

$$9 + \blacksquare = 13$$

$$3 + \Delta = 11$$

Missing Numbers in Equations (G)

What value does each shape represent?

$$7 + \nabla = 12$$

$$\nabla = 5$$

$$\diamond + 4 = 12$$

$$\diamond = 8$$

$$\square + 2 = 4$$

$$\square = 2$$

$$\triangle + 6 = 9$$

$$\triangle = 3$$

$$\square + 3 = 11$$

$$\square = 8$$

$$1 + \heartsuit = 9$$

$$\heartsuit = 8$$

$$\blacksquare + 7 = 15$$

$$\blacksquare = 8$$

$$5 + \blacksquare = 8$$

$$\blacksquare = 3$$

$$\square + 1 = 7$$

$$\square = 6$$

$$\blacksquare + 2 = 10$$

$$\blacksquare = 8$$

$$3 + \square = 11$$

$$\square = 8$$

$$\square + 1 = 2$$

$$\square = 1$$

$$\diamond + 5 = 8$$

$$\diamond = 3$$

$$\nabla + 5 = 7$$

$$\nabla = 2$$

$$\spadesuit + 1 = 7$$

$$\spadesuit = 6$$

$$\Delta + 8 = 11$$

$$\Delta = 3$$

$$\times + 6 = 10$$

$$\times = 4$$

$$8 + \blacksquare = 9$$

$$\blacksquare = 1$$

$$\heartsuit + 7 = 9$$

$$\heartsuit = 2$$

$$\blacksquare + 4 = 6$$

$$\blacksquare = 2$$

$$\odot + 5 = 7$$

$$\odot = 2$$

$$\ast + 6 = 11$$

$$\ast = 5$$

$$\ast + 9 = 12$$

$$\ast = 3$$

$$\heartsuit + 6 = 7$$

$$\heartsuit = 1$$

$$2 + \diamond = 3$$

$$\diamond = 1$$

$$\circledstar + 7 = 16$$

$$\circledstar = 9$$

$$8 + \heartsuit = 12$$

$$\heartsuit = 4$$

$$7 + \heartsuit = 16$$

$$\heartsuit = 9$$

$$\ast + 7 = 16$$

$$\ast = 9$$

$$\times + 5 = 6$$

$$\times = 1$$

$$7 + \odot = 15$$

$$\odot = 8$$

$$4 + \blacksquare = 6$$

$$\blacksquare = 2$$

$$\odot + 5 = 11$$

$$\odot = 6$$

$$\clubsuit + 6 = 13$$

$$\clubsuit = 7$$

$$1 + \heartsuit = 4$$

$$\heartsuit = 3$$

$$5 + \Delta = 8$$

$$\Delta = 3$$

$$6 + \nabla = 11$$

$$\nabla = 5$$

$$\circledstar + 2 = 8$$

$$\circledstar = 6$$

$$9 + \blacksquare = 13$$

$$\blacksquare = 4$$

$$3 + \Delta = 11$$

$$\Delta = 8$$

Missing Numbers in Equations (H)

What value does each shape represent?

$$\blacksquare + 6 = 9$$

$$9 + \times = 18$$

$$\star + 8 = 10$$

$$1 + \spadesuit = 5$$

$$\blacksquare + 3 = 5$$

$$2 + \diamond = 9$$

$$\lozenge + 1 = 2$$

$$\times + 2 = 8$$

$$\square + 7 = 10$$

$$\square + 5 = 13$$

$$8 + \blacksquare = 10$$

$$\triangledown + 1 = 4$$

$$\square + 7 = 9$$

$$3 + \square = 5$$

$$\diamond + 6 = 15$$

$$9 + \heartsuit = 15$$

$$7 + \diamond = 12$$

$$\Delta + 5 = 6$$

$$\lozenge + 9 = 12$$

$$4 + \bullet = 7$$

$$1 + \heartsuit = 4$$

$$1 + \lozenge = 6$$

$$\triangledown + 6 = 9$$

$$\diamond + 7 = 14$$

$$\blacksquare + 3 = 8$$

$$\diamond + 4 = 11$$

$$8 + \star = 16$$

$$1 + \lozenge = 7$$

$$1 + \spadesuit = 5$$

$$\bullet + 1 = 8$$

$$\clubsuit + 5 = 8$$

$$7 + \square = 16$$

$$3 + \bullet = 4$$

$$\triangledown + 6 = 12$$

$$1 + \heartsuit = 9$$

$$\heartsuit + 7 = 12$$

$$\diamond + 9 = 12$$

$$\star + 6 = 8$$

$$\square + 3 = 4$$

$$3 + \lozenge = 6$$

Missing Numbers in Equations (H)

What value does each shape represent?

$$\square + 6 = 9$$

$$\square = 3$$

$$9 + x = 18$$

$$x = 9$$

$$\star + 8 = 10$$

$$\star = 2$$

$$1 + \spadesuit = 5$$

$$\spadesuit = 4$$

$$\blacksquare + 3 = 5$$

$$\blacksquare = 2$$

$$2 + \diamondsuit = 9$$

$$\diamondsuit = 7$$

$$\lozenge + 1 = 2$$

$$\lozenge = 1$$

$$x + 2 = 8$$

$$x = 6$$

$$\triangle + 7 = 10$$

$$\triangle = 3$$

$$\square + 5 = 13$$

$$\square = 8$$

$$8 + \blacksquare = 10$$

$$\blacksquare = 2$$

$$\nabla + 1 = 4$$

$$\nabla = 3$$

$$\square + 7 = 9$$

$$\square = 2$$

$$3 + \square = 5$$

$$\square = 2$$

$$\diamondsuit + 6 = 15$$

$$\diamondsuit = 9$$

$$9 + \heartsuit = 15$$

$$\heartsuit = 6$$

$$7 + \diamondsuit = 12$$

$$\diamondsuit = 5$$

$$\Delta + 5 = 6$$

$$\Delta = 1$$

$$\lozenge + 9 = 12$$

$$\lozenge = 3$$

$$4 + \bullet = 7$$

$$\bullet = 3$$

$$1 + \heartsuit = 4$$

$$\heartsuit = 3$$

$$1 + \lozenge = 6$$

$$\lozenge = 5$$

$$\nabla + 6 = 9$$

$$\nabla = 3$$

$$\diamondsuit + 7 = 14$$

$$\diamondsuit = 7$$

$$\blacksquare + 3 = 8$$

$$\blacksquare = 5$$

$$\diamondsuit + 4 = 11$$

$$\diamondsuit = 7$$

$$8 + \star = 16$$

$$\star = 8$$

$$1 + \lozenge = 7$$

$$\lozenge = 6$$

$$1 + \spadesuit = 5$$

$$\spadesuit = 4$$

$$\bullet + 1 = 8$$

$$\bullet = 7$$

$$\clubsuit + 5 = 8$$

$$\clubsuit = 3$$

$$7 + \square = 16$$

$$\square = 9$$

$$3 + \bullet = 4$$

$$\bullet = 1$$

$$\nabla + 6 = 12$$

$$\nabla = 6$$

$$1 + \heartsuit = 9$$

$$\heartsuit = 8$$

$$\heartsuit + 7 = 12$$

$$\heartsuit = 5$$

$$\diamondsuit + 9 = 12$$

$$\diamondsuit = 3$$

$$\star + 6 = 8$$

$$\star = 2$$

$$\square + 3 = 4$$

$$\square = 1$$

$$3 + \lozenge = 6$$

$$\lozenge = 3$$

Missing Numbers in Equations (I)

What value does each shape represent?

$$4 + \square = 12$$

$$4 + \blacksquare = 5$$

$$\diamond + 3 = 11$$

$$\text{x} + 8 = 10$$

$$5 + \Delta = 8$$

$$\ast + 9 = 18$$

$$\blacksquare + 5 = 14$$

$$1 + \heartsuit = 9$$

$$\blacksquare + 9 = 10$$

$$3 + \bullet = 11$$

$$8 + \Delta = 17$$

$$7 + \square = 8$$

$$3 + \blacksquare = 6$$

$$\vartriangle + 8 = 15$$

$$6 + \heartsuit = 8$$

$$3 + \square = 9$$

$$\circlearrowleft + 4 = 6$$

$$\blacklozenge + 7 = 10$$

$$\heartsuit + 7 = 11$$

$$5 + \square = 9$$

$$\blacksquare + 5 = 14$$

$$\blacksquare + 5 = 10$$

$$\text{x} + 6 = 8$$

$$\circlearrowleft + 2 = 9$$

$$5 + \square = 10$$

$$3 + \star = 6$$

$$\vartriangle + 5 = 12$$

$$\diamondsuit + 1 = 7$$

$$\heartsuit + 7 = 12$$

$$\heartsuit + 2 = 11$$

$$6 + \Delta = 9$$

$$6 + \spadesuit = 10$$

$$6 + \spadesuit = 11$$

$$\star + 4 = 6$$

$$8 + \diamond = 9$$

$$4 + \square = 5$$

$$\triangledown + 7 = 9$$

$$\text{x} + 9 = 12$$

$$\diamond + 2 = 10$$

$$\square + 3 = 10$$

Missing Numbers in Equations (I)

What value does each shape represent?

$$4 + \square = 12$$

$$\square = 8$$

$$4 + \square = 5$$

$$\square = 1$$

$$\diamond + 3 = 11$$

$$\diamond = 8$$

$$x + 8 = 10$$

$$x = 2$$

$$5 + \Delta = 8$$

$$\Delta = 3$$

$$\ast + 9 = 18$$

$$\ast = 9$$

$$\blacksquare + 5 = 14$$

$$\blacksquare = 9$$

$$1 + \heartsuit = 9$$

$$\heartsuit = 8$$

$$\square + 9 = 10$$

$$\square = 1$$

$$3 + \odot = 11$$

$$\odot = 8$$

$$8 + \Delta = 17$$

$$\Delta = 9$$

$$7 + \blacksquare = 8$$

$$\blacksquare = 1$$

$$3 + \square = 6$$

$$\square = 3$$

$$\vartriangle + 8 = 15$$

$$\vartriangle = 7$$

$$6 + \heartsuit = 8$$

$$\heartsuit = 2$$

$$3 + \square = 9$$

$$\square = 6$$

$$\odot + 4 = 6$$

$$\odot = 2$$

$$\blacklozenge + 7 = 10$$

$$\blacklozenge = 3$$

$$\heartsuit + 7 = 11$$

$$\heartsuit = 4$$

$$5 + \square = 9$$

$$\square = 4$$

$$\blacksquare + 5 = 14$$

$$\blacksquare = 9$$

$$\blacksquare + 5 = 10$$

$$\blacksquare = 5$$

$$x + 6 = 8$$

$$x = 2$$

$$\odot + 2 = 9$$

$$\odot = 7$$

$$5 + \square = 10$$

$$\square = 5$$

$$3 + \star = 6$$

$$\star = 3$$

$$\vartriangle + 5 = 12$$

$$\vartriangle = 7$$

$$\diamondsuit + 1 = 7$$

$$\diamondsuit = 6$$

$$\heartsuit + 7 = 12$$

$$\heartsuit = 5$$

$$\heartsuit + 2 = 11$$

$$\heartsuit = 9$$

$$6 + \Delta = 9$$

$$\Delta = 3$$

$$6 + \spadesuit = 10$$

$$\spadesuit = 4$$

$$6 + \spadesuit = 11$$

$$\spadesuit = 5$$

$$\star + 4 = 6$$

$$\star = 2$$

$$8 + \diamond = 9$$

$$\diamond = 1$$

$$4 + \square = 5$$

$$\square = 1$$

$$\nabla + 7 = 9$$

$$\nabla = 2$$

$$x + 9 = 12$$

$$x = 3$$

$$\diamond + 2 = 10$$

$$\diamond = 8$$

$$\square + 3 = 10$$

$$\square = 7$$

Missing Numbers in Equations (J)

What value does each shape represent?

$$\blacklozenge + 6 = 14 \quad 2 + \text{X} = 11 \quad 2 + \odot = 3 \quad \square + 8 = 12$$

$$\star + 2 = 6 \quad 6 + \lozenge = 7 \quad 3 + \text{X} = 6 \quad \blacksquare + 4 = 13$$

$$2 + \odot = 3 \quad 7 + \blacklozenge = 8 \quad \text{X} + 9 = 10 \quad 3 + \text{X} = 10$$

$$7 + \circlearrowleft = 8 \quad 6 + \heartsuit = 13 \quad \heartsuit + 1 = 2 \quad \blacksquare + 7 = 10$$

$$\heartsuit + 4 = 10 \quad \square + 5 = 10 \quad \square + 6 = 10 \quad 7 + \nabla = 15$$

$$5 + \blacklozenge = 6 \quad 9 + \nabla = 17 \quad \Delta + 6 = 12 \quad 4 + \divideontimes = 13$$

$$\circlearrowleft + 8 = 14 \quad 5 + \odot = 13 \quad 3 + \blacksquare = 11 \quad \lozenge + 5 = 6$$

$$\star + 2 = 9 \quad 2 + \blacklozenge = 9 \quad \vartriangle + 7 = 12 \quad \blacklozenge + 1 = 5$$

$$\blacksquare + 8 = 16 \quad 6 + \blacksquare = 7 \quad \Delta + 8 = 14 \quad \lozenge + 8 = 11$$

$$2 + \odot = 5 \quad 9 + \blacksquare = 12 \quad 5 + \blacksquare = 9 \quad \blacksquare + 9 = 16$$

Missing Numbers in Equations (J)

What value does each shape represent?

$$\blacklozenge + 6 = 14$$

$$\blacklozenge = 8$$

$$2 + \text{X} = 11$$

$$\text{X} = 9$$

$$2 + \odot = 3$$

$$\odot = 1$$

$$\square + 8 = 12$$

$$\square = 4$$

$$\star + 2 = 6$$

$$\star = 4$$

$$6 + \diamond = 7$$

$$\diamond = 1$$

$$3 + \text{X} = 6$$

$$\text{X} = 3$$

$$\blacksquare + 4 = 13$$

$$\blacksquare = 9$$

$$2 + \odot = 3$$

$$\odot = 1$$

$$7 + \blacklozenge = 8$$

$$\blacklozenge = 1$$

$$\text{X} + 9 = 10$$

$$\text{X} = 1$$

$$3 + \text{X} = 10$$

$$\text{X} = 7$$

$$7 + \square = 8$$

$$\square = 1$$

$$6 + \heartsuit = 13$$

$$\heartsuit = 7$$

$$\heartsuit + 1 = 2$$

$$\heartsuit = 1$$

$$\blacksquare + 7 = 10$$

$$\blacksquare = 3$$

$$\heartsuit + 4 = 10$$

$$\heartsuit = 6$$

$$\square + 5 = 10$$

$$\square = 5$$

$$\square + 6 = 10$$

$$\square = 4$$

$$7 + \nabla = 15$$

$$\nabla = 8$$

$$5 + \blacklozenge = 6$$

$$\blacklozenge = 1$$

$$9 + \nabla = 17$$

$$\nabla = 8$$

$$\Delta + 6 = 12$$

$$\Delta = 6$$

$$4 + \ast = 13$$

$$\ast = 9$$

$$\square + 8 = 14$$

$$\square = 6$$

$$5 + \odot = 13$$

$$\odot = 8$$

$$3 + \blacksquare = 11$$

$$\blacksquare = 8$$

$$\diamond + 5 = 6$$

$$\diamond = 1$$

$$\star + 2 = 9$$

$$\star = 7$$

$$2 + \blacklozenge = 9$$

$$\blacklozenge = 7$$

$$\vartriangle + 7 = 12$$

$$\vartriangle = 5$$

$$\blacklozenge + 1 = 5$$

$$\blacklozenge = 4$$

$$\blacksquare + 8 = 16$$

$$\blacksquare = 8$$

$$6 + \blacksquare = 7$$

$$\blacksquare = 1$$

$$\Delta + 8 = 14$$

$$\Delta = 6$$

$$\diamond + 8 = 11$$

$$\diamond = 3$$

$$2 + \odot = 5$$

$$\odot = 3$$

$$9 + \blacksquare = 12$$

$$\blacksquare = 3$$

$$5 + \blacksquare = 9$$

$$\blacksquare = 4$$

$$\blacksquare + 9 = 16$$

$$\blacksquare = 7$$