**Front Clockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **7** | **4** | **1** | **8** | **5** | **2** | **9** | **6** | **3** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **43** | **11** | **12** | **44** | **14** | **15** | **45** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **16** | **13** | **10** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **46** | **31** | **32** | **47** | **34** | **35** | **48** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **36** | **33** | **30** |

**Front CounterClockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **3** | **6** | **9** | **2** | **5** | **8** | **1** | **4** | **7** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **48** | **11** | **12** | **47** | **14** | **15** | **46** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **30** | **33** | **36** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **45** | **31** | **32** | **44** | **34** | **35** | **43** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **10** | **13** | **16** |

**Back Clockwise:**

back

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| **21** | **24** | **27** | **20** | **23** | **26** | **19** | **22** | **25** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **37** | **11** | **12** | **38** | **14** | **15** | **39** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **16** | **13** | **10** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **52** | **29** | **30** | **53** | **32** | **33** | **54** | **35** | **36** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **34** | **31** | **28** | **40** | **41** | **42** | **43** | **44** | **45** |

**Back CounterClockwise:**

back

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| **25** | **22** | **19** | **26** | **23** | **20** | **27** | **24** | **21** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **10** | **11** | **54** | **13** | **14** | **53** | **16** | **17** | **52** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **34** | **31** | **28** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **37** | **29** | **46** | **38** | **32** | **47** | **39** | **35** | **48** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **12** | **15** | **18** | **40** | **41** | **42** | **36** | **33** | **30** |

**Right Clockwise:**

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **16** | **13** | **10** | **17** | **14** | **11** | **18** | **15** | **12** |

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **1** | **2** | **48** | **4** | **5** | **51** | **7** | **8** | **54** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **46** | **47** | **27** | **49** | **50** | **24** | **52** | **53** | **21** |

back

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| **45** | **20** | **21** | **42** | **23** | **24** | **39** | **26** | **27** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **3** | **40** | **41** | **6** | **43** | **44** | **9** |

**Right CounterClockwise:**

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **12** | **15** | **18** | **11** | **14** | **17** | **10** | **13** | **16** |

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **1** | **2** | **39** | **4** | **5** | **42** | **7** | **8** | **45** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **30** | **33** | **3** | **49** | **50** | **6** | **52** | **53** | **9** |

back

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| **19** | **20** | **54** | **22** | **23** | **51** | **25** | **26** | **48** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **27** | **40** | **41** | **24** | **43** | **44** | **21** |

**Left Clockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **7** | **4** | **1** | **8** | **5** | **2** | **9** | **6** | **3** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **43** | **11** | **12** | **44** | **14** | **15** | **45** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **16** | **13** | **10** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **46** | **31** | **32** | **47** | **34** | **35** | **48** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **36** | **33** | **30** |

**Left CounterClockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **3** | **6** | **9** | **2** | **5** | **8** | **1** | **4** | **7** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **48** | **11** | **12** | **47** | **14** | **15** | **46** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **30** | **33** | **36** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **45** | **31** | **32** | **44** | **34** | **35** | **43** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **10** | **13** | **16** |

**Up Clockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **7** | **4** | **1** | **8** | **5** | **2** | **9** | **6** | **3** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **43** | **11** | **12** | **44** | **14** | **15** | **45** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **16** | **13** | **10** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **46** | **31** | **32** | **47** | **34** | **35** | **48** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **36** | **33** | **30** |

**Up CounterClockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **3** | **6** | **9** | **2** | **5** | **8** | **1** | **4** | **7** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **48** | **11** | **12** | **47** | **14** | **15** | **46** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **30** | **33** | **36** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **45** | **31** | **32** | **44** | **34** | **35** | **43** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **10** | **13** | **16** |

**Down Clockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **7** | **4** | **1** | **8** | **5** | **2** | **9** | **6** | **3** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **43** | **11** | **12** | **44** | **14** | **15** | **45** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **16** | **13** | **10** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **46** | **31** | **32** | **47** | **34** | **35** | **48** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **36** | **33** | **30** |

**Down CounterClockwise:**

face

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **3** | **6** | **9** | **2** | **5** | **8** | **1** | **4** | **7** |

right

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| **48** | **11** | **12** | **47** | **14** | **15** | **46** | **17** | **18** |

bottom

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| **30** | **33** | **36** | **49** | **50** | **51** | **52** | **53** | **54** |

left

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| **28** | **29** | **45** | **31** | **32** | **44** | **34** | **35** | **43** |

top

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| **37** | **38** | **39** | **40** | **41** | **42** | **10** | **13** | **16** |