

1 Find the highest possible value for x for each inequality:

$x \leq 1$

1

$x \leq 2$

2

$x \leq 3$

3

$x \leq 4$

4

$2x \leq 2$

1

$2x \leq 4$

2

$2x \leq 6$

3

$2x \leq 8$

4

$x+1 \leq 2$

1

$x+2 \leq 3$

1

$x+3 \leq 4$

1

$x+4 \leq 5$

1

$x-1 \leq 2$

3

$x-2 \leq 3$

5

$x-3 \leq 4$

7

$x-4 \leq 5$

9

2 Find the lowest possible value for x for each inequality:

$x \geq 1$

1

$x \geq 2$

2

$x \geq 3$

3

$x \geq 4$

4

$2x \geq 2$

1

$2x \geq 4$

2

$2x \geq 6$

3

$2x \geq 8$

4

$x+1 \geq 2$

1

$x+2 \geq 3$

1

$x+3 \geq 4$

1

$x+4 \geq 5$

1

$x-1 \geq 2$

3

$x-2 \geq 3$

5

$x-3 \geq 4$

7

$x-4 \geq 5$

9

3 Solve the inequalities:

$x+1 \leq 11$

$x+1 \leq 21$

$x+1 \leq 31$

$x+1 \leq 41$

$x \leq 10$

$x \leq 20$

$x \leq 30$

$x \leq 40$

$2x \leq 2$

$2x \leq 4$

$2x \leq 6$

$2x \leq 8$

$x \leq 1$

$x \leq 2$

$x \leq 3$

$x \leq 4$

$x+1 \leq 2$

$x+2 \leq 3$

$x+3 \leq 4$

$x+4 \leq 5$

$x \leq 1$

$x \leq 1$

$x \leq 1$

$x \leq 1$

$x-1 \leq 2$

$x-2 \leq 3$

$x-3 \leq 4$

$x-4 \leq 5$

$x \leq 3$

$x \leq 5$

$x \leq 7$

$x \leq 9$

$x+1 \geq 11$

$x+1 \geq 21$

$x+1 \geq 31$

$x+1 \geq 41$

$x \geq 10$

$x \geq 20$

$x \geq 30$

$x \geq 40$

$2x \geq 2$

$2x \geq 4$

$2x \geq 6$

$2x \geq 8$

$x \geq 1$

$x \geq 2$

$x \geq 3$

$x \geq 4$

$x+1 \geq 2$

$x+2 \geq 3$

$x+3 \geq 4$

$x+4 \geq 5$

$x \geq 1$

$x \geq 1$

$x \geq 1$

$x \geq 1$

$x-1 \geq 2$

$x-2 \geq 3$

$x-3 \geq 4$

$x-4 \geq 5$

$x \geq 3$

$x \geq 5$

$x \geq 7$

$x \geq 9$

4 Complete the table:

| Original number | Rounded to nearest 10 | Rounded to nearest 100 | Rounded to nearest 1000 |
|-----------------|-----------------------|------------------------|-------------------------|
| 1 | 0 | 0 | 0 |
| 10 | 10 | 0 | 0 |
| 14 | 10 | 0 | 0 |
| 15 | 20 | 0 | 0 |
| 49 | 50 | 0 | 0 |
| 50 | 50 | 100 | 0 |
| 54 | 50 | 100 | 0 |
| 55 | 60 | 100 | 0 |
| 499 | 500 | 500 | 0 |
| 500 | 500 | 500 | 1000 |
| 999 | 1000 | 1000 | 1000 |
| 9,999 | 10,000 | 10,000 | 10,000 |
| 99,999 | 100,000 | 100,000 | 100,000 |
| 999,999 | 1,000,000 | 1,000,000 | 1,000,000 |
| 9,999,999 | 10,000,000 | 10,000,000 | 10,000,000 |
| 99,999,999 | 100,000,000 | 100,000,000 | 100,000,000 |
| 999,999,999 | 1,000,000,000 | 1,000,000,000 | 1,000,000,000 |
| 9,999,999,999 | 10,000,000,000 | 10,000,000,000 | 10,000,000,000 |
| 99,999,999,999 | 100,000,000,000 | 100,000,000,000 | 100,000,000,000 |

5 Complete the table:

| Original number | Rounded to nearest 0.1 | Rounded to nearest 0.01 | Rounded to nearest 0.001 |
|-----------------|------------------------|-------------------------|--------------------------|
| 1 | 1 | 1 | 1 |
| 1.1 | 1.1 | 1.1 | 1.1 |
| 0.14 | 0.1 | 0.14 | 0.14 |
| 0.15 | 0.2 | 0.15 | 0.15 |
| 1.49 | 1.5 | 1.49 | 1.49 |
| 1.50 | 1.5 | 1.50 | 1.50 |
| 2.54 | 2.5 | 2.54 | 2.54 |
| 2.55 | 2.6 | 2.55 | 2.55 |
| 3.499 | 3.5 | 3.50 | 3.499 |
| 3.500 | 3.5 | 3.50 | 3.500 |
| 4.999 | 5.0 | 5.00 | 4.999 |
| 9.999 | 10.0 | 10.00 | 9.999 |
| 9.9999 | 10.0 | 10.00 | 10.000 |
| 9.99999 | 10.0 | 10.00 | 10.000 |
| 9,999.999 | 10,000.0 | 10,000.00 | 9,999.999 |
| 99,999.999 | 100,000.0 | 100,000.00 | 99,999.999 |
| 999,999.999 | 1,000,000.0 | 1,000,000.00 | 999,999.999 |
| 9,999.999999 | 10,000.0 | 10,000.00 | 10,000.000 |
| 99,999.999999 | 100,000.0 | 100,000.00 | 100,000.000 |

- 6 Each number has been rounded to the nearest 10. Write the error interval within which the original number must lie. The first two rows have already been completed!

| Number rounded to nearest 10 | Error interval |
|------------------------------|------------------|
| 10 | $5 \leq x < 15$ |
| 20 | $15 \leq x < 25$ |
| 30 | $25 \leq x < 35$ |
| 40 | $35 \leq x < 45$ |
| 50 | $45 \leq x < 55$ |
| 60 | $55 \leq x < 65$ |
| 70 | $65 \leq x < 75$ |
| 80 | $75 \leq x < 85$ |
| 90 | $85 \leq x < 95$ |

- 7 Each number has been rounded to the nearest 100. Write the error interval within which the original number must lie. The first two rows have already been completed!

| Number rounded to nearest 100 | Error interval |
|-------------------------------|--------------------|
| 100 | $50 \leq x < 150$ |
| 200 | $150 \leq x < 250$ |
| 300 | $250 \leq x < 350$ |
| 400 | $350 \leq x < 450$ |
| 500 | $450 \leq x < 550$ |
| 600 | $550 \leq x < 650$ |
| 700 | $650 \leq x < 750$ |
| 800 | $750 \leq x < 850$ |
| 900 | $850 \leq x < 950$ |