

CAT4 for Grade 7

Number Analogies

1.

The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[13 → 17][25 → 29][70 → ?]

Select one:

- a. 64
- b. 66
- c. 74
- d. 76
- e. 99

2.

The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two numbers are arranged.

[2 → 8][3 → 12][4 → ?]

Select one:

- a. 16
- b. 14
- c. 12
- d. 18
- e. 20

3.

The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[24 → 8][21 → 7][18 → ?]

Select one:

- a. 12
- b. 8
- c. 7
- d. 6
- e. 5

4.

The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[4 → -1][-1 → -6][8 → ?]

Select one:

- a. 3
- b. -2
- c. 4
- d. 6
- e. -3

5.

The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[-2 → 1][5 → 8][-6 → ?]

Select one:

- a. 0
- b. -2
- c. 3
- d. 1
- e. -3

6. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[-3 \rightarrow -9][5 \rightarrow 15][-6 \rightarrow ?]$

Select one:

- a. -18
- b. -16
- c. -14
- d. -12
- e. -8

7. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[12 \rightarrow 3][20 \rightarrow \frac{20}{4}][24 \rightarrow ?]$

Select one:

- a. $\frac{6}{5}$
- b. 2
- c. 6
- d. $-\frac{1}{5}$
- e. 3

8. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[5 → -10][-25 → 50][75 → ?]

Select one:

- a. -100
- b. -150
- c. 0
- d. 100
- e. -25

9. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[12 → -4][-18 → 6][24 → ?]

Select one:

- a. 4
- b. -6
- c. -8
- d. 10
- e. 0

10. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[0.10 → 0.50][3.10 → 3.50][5.10 → ?]

Select one:

- a. 5.60
- b. 2.50
- c. 5
- d. 2.40
- e. 5.50

11. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[1.5 → 1][2.5 → 2][3.5 → ?]

Select one:

- a. 4
- b. 3
- c. 2
- d. 1
- e. 0

12. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[0.8 → 2.4][0.11 → 0.33][0.25 → ?]

Select one:

- a. 0.75
- b. 1.
- c. 0.075
- d. 0.50
- e. 1.50

13. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[4.50 → 2.25][6.50 → 3.25][8.50 → ?]

Select one:

- a. 4.50
- b. 2.28
- c. 4.25
- d. -4
- e. 2.88

14. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[-0.11 \rightarrow 0.33][0.5 \rightarrow -1.50][1.5 \rightarrow ?]$

Select one:

- a. -2.7
- b. 4.3
- c. -0.50
- d. -4.5
- e. -2.5

15. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[1.8 \rightarrow -0.6][-3.6 \rightarrow 1.2][5.4 \rightarrow ?]$

Select one:

- a. 1.8
- b. -1.8
- c. 2.7
- d. -2.7
- e. 3.6

16. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[-2 \rightarrow 1][4 \rightarrow -2][-9 \rightarrow ?]$

Select one:

- a. 4.5
- b. -4.5
- c. 2.5
- d. -2.5
- e. 4

17. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[8 → 0][18 → 10][28 → ?]

Select one:

- a. 18
- b. 19
- c. 23
- d. 21
- e. 20

18. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

[-4 → 6][7 → -10.5][-8 → ?]

Select one:

- a. 6
- b. 6.5
- c. 12.5
- d. 12
- e. 8

19. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[-12 \rightarrow 8][15 \rightarrow -10][21 \rightarrow ?]$

Select one:

- a. 14
- b. -14
- c. -15
- d. 15
- e. -25

20. The first two pairs of numbers are related in some way. Figure out what the relationship is between the numbers within each of the pairs. Choose an answer that creates a third pair of numbers that are related to each other in the same way that the first two pairs are related.

$[30 \rightarrow 25][47 \rightarrow 42][55 \rightarrow ?]$

Select one:

- a. 55
- b. 50
- c. -50
- d. -55
- e. 1.50

Key

1-5: CADA E

6-10: ACBCE

11-15 : BACDB

16-20 : AEDCB