

Name: _____ Date: _____

1. Solve with a graph.

$$-4 + x = -4.5$$

2. Solve with a table.

$$x^2 + 5x = 0$$

3. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Create a table of body mass indices for a height of 64 inches and a range of weights from 100 to 140 pounds in increments of 10 pounds. (Round values to the nearest tenth.)

4. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Use the following table of body mass indices for a height of 76 inches to solve the equation.

Weight (lb)	Index
160	19.5
170	20.7
180	22.0
190	23.2
200	24.4

$$24.4 = \frac{W(704.5)}{76^2}$$

5. Solve with a graph.

$$2 + x = -1.5$$

6. Solve with a table.

$$x^2 + 4x = 0$$

7. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Create a table of body mass indices for a height of 72 inches and a range of weights from 140 to 180 pounds in increments of 10 pounds. (Round values to the nearest tenth.)

8. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Use the following table of body mass indices for a height of 60 inches to solve the equation.

Weight (lb)	Index
80	15.7
90	17.6
100	19.6
110	21.5
120	23.5

$$23.5 = \frac{W(704.5)}{60^2}$$

9. Solve with a graph.

$$-4 - x = -7.5$$

10. Solve with a table.

$$x^2 + x = 0$$

11. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Create a table of body mass indices for a height of 66 inches and a range of weights from 110 to 150 pounds in increments of 10 pounds. (Round values to the nearest tenth.)

12. Solve with a graph.

$$5 + x = 7.5$$

13. Solve with a table.

$$x^2 + 5x = 0$$

14. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Create a table of body mass indices for a height of 68 inches and a range of weights from 120 to 160 pounds in increments of 10 pounds. (Round values to the nearest tenth.)

15. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Use the following table of body mass indices for a height of 60 inches to solve the equation.

Weight (lb)	Index
80	15.7
90	17.6
100	19.6
110	21.5
120	23.5

$$19.6 = \frac{W(704.5)}{60^2}$$

16. The body mass index compares weight and height. An index in the range of 19 to 24 is recommended for good health.

The formula for body mass index is $I = \frac{W(704.5)}{H^2}$ where the index, I , is given in terms

of weight in pounds, W , and height in inches, H .

Use the following table of body mass indices for a height of 68 inches to solve the equation.

Weight (lb)	Index
120	18.3
130	19.8
140	21.3
150	22.9
160	24.4

$$24.4 = \frac{W(704.5)}{68^2}$$

Answer Key

1. -0.5

2. $-5, 0$

3.

Weight (lb)	Index
100	17.2
110	18.9
120	20.6
130	22.4
140	24.1

4. 200

5. -3.5

6. $-4, 0$

7.

Weight (lb)	Index
140	19.0
150	20.4
160	21.7
170	23.1
180	24.5

8. 120

9. 3.5

10. $-1, 0$

11.

Weight (lb)	Index
110	17.8
120	19.4
130	21.0
140	22.6
150	24.3

12. 2.5

13. $-5, 0$

14.

Weight (lb)	Index
120	18.3
130	19.8
140	21.3
150	22.9
160	24.4

15. 100

16. 160