1. Which equation forms a direct variation   Std: 7.A.1

A   $y = 2x + 1$

B   $-3 + y = \frac{1}{3}x$

C   $\frac{4}{5}x = y$

D   $y = \frac{3}{5x}$

Level 3

2. Which equation forms a inverse variation   Std: 7.A.1

A   $y = \frac{3}{5x}$

B   $y = 2x + 1$

C   $-3 + y = \frac{1}{3}x$

D   $\frac{4}{5}x = y$

Level 3

3. Given the following proportional relationship, find the constant of proportionality:   Std: 7.A.1

A   $k = \frac{3}{1}$

B   $k = -\frac{3}{1}$

C   $k = \frac{1}{3}$

D   $k = -\frac{1}{3}$

Level 3

4. Given the following inverse relationship, and the point find k:   Std: 7.A.1

A   $k = \frac{4}{1}$

B   $k = -\frac{4}{1}$

C   $k = \frac{1}{4}$

D   $k = -\frac{1}{4}$

(1,4)

Level 3

5. Identify the graph that shows a proportional relationship.   Std: 7.A.1

A     B

C     D

Level 3

6. Identify the table that shows a proportional relationship.   Std: 7.A.1

A

| X | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| Y | 0 | 2 | 3 | 4 | 5 |

B

| X | Y |
|---|---|
| 0 | 2 |
| 10 | 4 |
| 20 | 8 |
| 30 | 12 |
| 40 | 16 |

C

| X | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| Y | 0 | 5 | 10 | 15 | 25 |

D

| X | Y |
|---|---|
| 0 | 0 |
| 1 | 3 |
| 2 | 6 |
| 4 | 12 |
| 8 | 24 |

Level 3

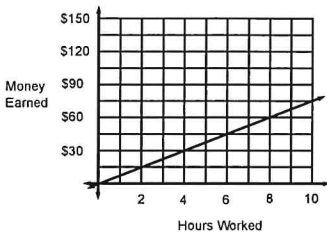---

7.A.2 Quiz 1 | Std: 7.A.2

**1. The graph shows the relationship between hours worked and money earned. Which statement is true?**

A  $7.50 dollars is earned per hour

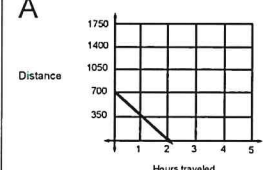B  $15 dollars is earned per hour

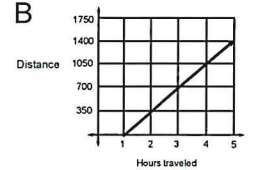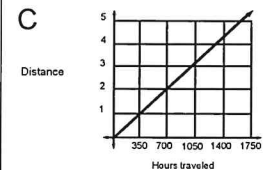C  $30 dollars is earned per hour

D  $60 dollars is earned per hour



Money Earned ($150, $120, $90, $60, $30) vs Hours Worked (2, 4, 6, 8, 10)
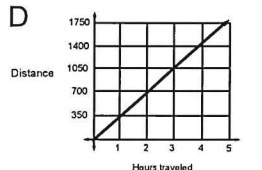
Level 3

---

Std: 7.A.2

**2. A plane flies at a rate of 350 miles per hour. Which graph shows this linear relationship?**

A 

B 

C 

D 

Level 3

---

Std: 7.A.2

**3. A recipe serves 8 and it asks for 3 cups of sugar. How many cups of sugar do you need if you are serving 12?**

A  1.5 Cups

B  3 Cups

C  4.5 Cups

D  6 Cups

Level 3

---

Std: 7.A.2

**4. A laptop costs $1,200. It is on sale for a 15% discount. How much is the discount?**

A  $180

B  $1020

C  $1320

D  $15

Level 3

---

Std: 7.A.2

**5. Bob is going to purchase a new electric guitar that retails for $1,800. If the store is giving a 20% discount. What will Bob have to pay for the guitar if sales tax is 8%?**

A  $360.20

B  $1,440.00

C  $1,555.20

D  $1,584.00

Level 3-4

---

Std: 7.A.2

**6. Which relationship best describes a person draining the amount of water in a swimming pool?**

A  Negative Linear Relationship

B  Positive Linear Relationship

C  Negative Non-linear Relationship

D  Positive Non-linear Relationship

Level 3-4

1

Std: 7.A.2

7. Which of the choices below is the cheapest rate for buying steak?

A   $18.75 for 2.7 pounds

B   $25.25 for 3.25 pounds

C   $38.15 for 5.15 pounds

D   $44.89 for 6.2 pounds

Level 3

Std: 7.A.2

8. A person stands about 6 feet tall, and casts a shadow of 8 feet. A tree of unknown height casts a shadow of 20 feet. Use proportional reasoning to find the height of the tree.

A   The tree is 10 feet tall

B   The tree is 12.5 feet tall

C   The tree is 15 feet tall

D   The tree is 17.5 feet tall

Level 3

7.A.3 Quiz 1

Std: 7.A.3

1. Solve for the following equation:

$$3(-2x + 5) = 27$$

A   x = -2

B   x = 2

C   x = 8

D   x = 16

Level 3

---

Std: 7.A.3

2. Solve for the following inequality:

$$3 + x \geq 10$$

A   $x \geq -7$

B.  $x \geq -5$

C   $x \geq 5$

D   $x \geq 7$

Level 3

---

Std: 7.A.3

3. A cell phone provider charges an origination fee of $150 and $60 per month. If y represents the total cost, and x represents the number of months, which equation describes this situation.

A   $x = 150y + 60$

B   $y = 150x + 60$

C   $x = 60y + 150$

D   $y = 60x + 150$

Level 3

---

Std: 7.A.3

4. A cell phone provider charges an origination fee of $150 and $60 per month. If y represents the total cost, and x represents the number of months, which equation describes this situation. How much will it cost for 10 months?

A   $200

B   $350

C   $600

D   $750

Level 3

---

Std: 7.A.3

5. Which value of z makes the following statement true?

$$\frac{Z}{12} + 22.5 = -10.5$$

A   -396

B   396

C   -750.5

D   750.5

Level 3

1

7.A.4 Quiz 1

1. Simplify:  Std: 7.A.4

$$-5(24 \div 6) + 2^2$$

A  -16

B  16

C  -56

D  56

Level 3

2. Simplify:  Std: 7.A.4

$$6.1 + (7.5 \times 11 \times 2)^2$$

A  -1236.1

B  1723.9

C  27231.1

D  166072.5

Level 3

3. Simplify:  Std: 7.A.4

$$\frac{1}{4}(16x - 8) = -1.5$$

A  -0.125

B  0.125

C  -0.25

D  0.25

Level 3

4. Simplify:  Std: 7.A.4

$$-3x + 8x - 9y$$

A  $-11x - 9y$

B  $5x - 9y$

C  $-5x - 9y$

D  $11x - 9y$

Level 3

5. Simplify:  Std: 7.A.4

$$2x + 5y + 2x^2 - 7y$$

A  $4x^2 - 2y$

B  $2x + 2x^2 - 2y$

C  $4x^2 - 12y$

D  $4x^2 - 2y$

Level 3

1

7.A Standard Quiz | Std: 7.A.1

1. Which equation forms a direct variation

A $y = 2x + 1$

B $y = \dfrac{3}{-5x}$

C $\dfrac{-4}{3}x = y$

D $-3y + 2 = \dfrac{1}{3}x$

Level 3

---

Std: 7.A.1

2. Which equation forms a inverse variation

A $y = \dfrac{-3}{x}$

B $\dfrac{4}{5}x = y$

C $-3 + y = \dfrac{1}{3}x$

D $y = 2x + 1$

Level 3

---

Std: 7.A.1

3. Given the following proportional relationship, find the constant of proportionality:

A $k = \dfrac{2}{3}$

B $k = -\dfrac{2}{3}$

C $k = \dfrac{3}{2}$

D $k = -\dfrac{3}{2}$

Level 3

---

Std: 7.A.1

4. Given the following inverse relationship, and the point find k:

A $k = \dfrac{1}{2}$

B $k = \dfrac{2}{1}$

C $k = -\dfrac{2}{1}$

D $k = -\dfrac{1}{2}$

(2,1)

Level 3

---

Std: 7.A.2

5. The graph shows the relationship between hours worked and money earned. Which statement is true?

A $7.50 dollars is earned per hour

B $15 dollars is earned per hour

C $30 dollars is earned per hour

D $60 dollars is earned per hour

Money Earned / Hours Worked

$120 / $90 / $60 / $30 / 2 / 4 / 6 / 8

Level 3

---

Std: 7.A.2

6. A jet flies at a rate of 700 miles per hour. Which graph shows this linear relationship?

A

B

C

D

Level 3

1

---

Std: 7.A.2

7. A TV costs $1,300. If tax is at 8.5%. How much is the the sales tax?

A  $85

B  $110.50

C  $1189.50

D  $1410.50

Level 3

---

Std: 7.A.2

8. Petulia is going to purchase a new electric guitar that retails for $3,500. If the store is giving a 12.5% discount. What will she have to pay for the guitar if sales tax is 9%?

A  $437.50

B  $3062.50

C  $3215.25

D  $3338.13

Level 3-4

---

Std: 7.A.3

9. Solve for the following equation:

$$-3(-5x - 10) = 60$$

A  x = -2

B  x = 2

C  x = 8

D  x = 16

Level 3

---

Std: 7.A.3

10. An Internet provider charges an installation fee of $50 and $35 per month. If y represents the total cost, and x represents the number of months, which equation describes this situation.

A  $y = 50x + 35$

B  $y = 35x + 50$

C  $x = 35y + 50$

D  $x = 50y + 35$

Level 3

---

Std: 7.A.3

11. Which value of Y makes the following statement true?

$$\frac{Y}{-2} + 2.5 = -0.5$$

A  -6

B  -1

C  1

D  6

Level 3

---

Std: 7.A.4

12. Simplify:

$$6^2 + (-2 \times 8 \times 5) + 14$$

A  -100

B  -30

C  30

D  100

Level 3

---

| Standard Quiz | Question Number Followed by the Answer | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.N.1Quiz1 | 1.B | 2.D | 3.B | 4.B | 5.D | 6.D | | | | | |
| 7.N.2Quiz1 | 1.C | 2.D | 3.B | 4.D | 5.B | 6.D | 7.A | 8.A | | | |
| 7.N.2Quiz2 | 1.C | 2.A | 3.D | 4.B | 5.D | | | | | | |
| 7.NQuiz | 1.A | 2.B | 3.D | 4.A | 5.C | 6.C | 7.A* | 8.B* | 9.A | 10.C | 11.C | 12.C |
| 7.A.1Quiz1 | 1.C | 2.A | 3.C | 4.A | 5.B | 6.D | | | | | |
| 7.A.2Quiz1 | 1.A | 2.D | 3.C | 4.A | 5.C | 6.A | 7.A | 8.C | | | |
| 7.A.3Quiz1 | 1.A | 2.D | 3.D | 4.D | 5.A | | | | | | |
| 7.A.4Quiz1 | 1.A | 2.C | 3.B | 4.B | 5.B | | | | | | |
| 7.A.Std.Quiz | 1.C | 2.A | 3.C | 4.B | 5.C | 6.A | 7.B | 8.D | 9.B | 10.B | 11.D | 12.B |
| 7.GM.1Quiz1 | 1.C | 2.D | 3.A | 4.B | 5.A | | | | | | |
| 7.GM.2Quiz1 | 1.A | 2.C | 3.D | 4,B | | | | | | | |
| 7.GM.3Quiz1 | 1.D | 2.B | 3.A | 4.C | 5.A | 6.B | | | | | |
| 7.GM.4Quiz1 | 1.D | 2.A | 3.A | 4.B | 5.C | 6.D | 7.C | 8.A | 9.C | 10.A | |
| 7.GM.Std.Quiz | 1.D | 2.B | 3.B | 4.D | 5.C | 6.D | 7.A | 8.B | 9.C | 10.A | 11.C | 12.A |
| 7.D.1Quiz1 | 1.B | 2.B | 3.C | 4.A | 5.D | 6.D | | | | | |
| 7.D.2Quiz1 | 1.B | 2.C | 3.A | 4.C | 5.D | | | | | | |
| 7.D.Std.Quiz | 1.A | 2.A | 3.C | 4.D | 5.B | 6.C | 7.C | 8.D | 9.D | 10.A | 11.B | 12.C |
| Standard Test | 1.B | 2.B | 3.C | 4.C | 5.A | 6.C | 7.C | 8.A | 9.B | 10.D | 11.C | 12.A |
| | 13.D | 14.C | 15.A | 16.C | 17.C | 18.D | 19.C | 20.A | 21.A | 22.D | 23.D | 24.A |
| | 25.C | 26.B | 27.B | 28.D | 29.C | 30.D | 31.B | 32.D | 33.B | 34.D | 35.D | 36.B |
| | 37.C | 38.A | 39.D | 40.D | 41.D | 42.C | | | | | | |