

Next Generation NY Math Rehearsal[®] Plus Instruction

Teacher's Guide and Extended Answer Key

LEVEL

G

RALLY[®]
EDUCATION

We're all about student success![®]

Instructional Practice with Guides

In the Student Book, the Instructional Practice provides students with 30 practice questions similar in scope and structure to the actual questions in Sessions 1 and 2. In this Teacher Guide, there are guides that the teacher can provide to the student to help them solve each problem.

1 B 7.RP.1

Guide: Let x represent the time for 1 student to make 12 signs.

$$\frac{1}{20} = \frac{12}{x}$$

$$20 \times 12 = 1x$$

$$240 = x$$

$$240 \div 2 = 120 \text{ minutes for 2 students to make 12 signs}$$

2 C 7.EE.1

Guide: Let s represent the missing side.

$$9x + 9 = (x + 6) + 4x + s$$

$$9x + 9 = 5x + 6 + s$$

$$4x + 9 = 6 + s$$

$$4x + 3 = s$$

3 D 7.NS.3

$$\text{Guide: Mean} = (1.85 + (-1.2) + (-0.55) + 1.6) \div 4$$

4 C 7.RP.2

$$\text{Guide: } 1.76 \times 6 = 10.56$$

$$10.56 - 7.92 = \$2.64$$

5 B 7.RP.2a

Guide: A proportional relationship must be a straight line that passes through the origin.

6 B 7.NS.3

Guide: A withdrawal of \$46 can be represented by $-\$46$.

A deposit can be represented by $+\$57$.

$$-46 + 57 = 11$$

7 C 7.NS.2d
Guide: $\frac{5}{8} = 5 \div 8 = 0.625$

8 **Show Your Work:** Student should show $p - 0.25p = 0.75p$ or equivalent work.

Guide: If the discount rate is 25% off, then to find the sale price, you must multiply the original price by 0.25 and subtract that from the original price.

Possible Answers: $p - 0.25p$ or $0.75p$

7.EE.2

9 **Show Your Work:** Student should show $180 \div 5 = 36$ or equivalent work.

Guide: To find a unit rate, divide the total occurrences by the amount of time that has passed.

Answer: 36 pages per minute

7.RP.2b

10 **Show Your Work:** $\frac{1}{2}m - 4 = 12$

$\frac{1}{2}m = 12 + 4$

$\frac{1}{2}m = 16$

$2(\frac{1}{2}m) = 2(16)$

$m = 32$

Guide: To find Melanie's age, we must multiply her age by $\frac{1}{2}$ and subtract 4.

Answer: Melanie is 32 years old.

7.EE.4a

Answer Key

Rehearsal Test 1, Session 1

Multiple-Choice Questions are worth 1 point each.

| Question | Answer | Learning Standard | Question | Answer | Learning Standard |
|----------|--------|-------------------|----------|--------|-------------------|
| 1 | B | 7.EE.1 | 21 | C | 7.EE.2 |
| 2 | B | 7.RP.2b | 22 | B | 7.EE.1 |
| 3 | C | 7.RP.3 | 23 | D | 7.SP.8c |
| 4 | A | 7.G.1 | 24 | C | 7.EE.3 |
| 5 | B | 7.EE.1 | 25 | A | 7.EE.3 |
| 6 | D | 7.RP.1 | 26 | D | 7.RP.3 |
| 7 | B | 7.EE.4a | 27 | A | 7.RP.2a |
| 8 | C | 7.RP.3 | 28 | C | 7.EE.2 |
| 9 | B | 7.NS.2c | 29 | C | 7.EE.4a |
| 10 | C | 7.RP.2b | 30 | C | 7.EE.4a |
| 11 | A | 7.SP.8b | 31 | D | 7.NS.1a |
| 12 | C | 7.EE.4a | 32 | B | 7.RP.3 |
| 13 | B | 7.RP.1 | | | |
| 14 | A | 7.NS.2d | | | |
| 15 | B | 7.SP.8a | | | |
| 16 | B | 7.NS.1c | | | |
| 17 | B | 7.EE.1 | | | |
| 18 | D | 7.NS.3 | | | |
| 19 | B | 7.NS.3 | | | |
| 20 | B | 7.RP.2a | | | |

Rehearsal Test 1, Session 2

Multiple-Choice Questions are worth 1 point each.

| Question | Answer | Learning Standard |
|----------|--------|-------------------|
|----------|--------|-------------------|

| | | |
|---|---|---------|
| 1 | B | 7.EE.3 |
| 2 | C | 7.RP.2b |
| 3 | D | 7.RP.2c |
| 4 | A | 7.EE.1 |
| 5 | B | 7.SP.8a |
| 6 | A | 7.EE.4b |

Each part of a Short-Response Question is worth 1 point.

| | | |
|---|------------------|------------------------------------|
| 7 | Equation: | Possible answer: $836 - 754 = 12b$ |
|---|------------------|------------------------------------|

| | |
|------------------------|--|
| Show Your Work: | $836 - 754 = 82$ $82 \div 12 = 6 \text{ r } 10$ |
|------------------------|--|

| | |
|----------------|--------------------|
| Answer: | 7 boxes 7.EE.4a |
|----------------|--------------------|

| | | |
|---|------------------------|---|
| 8 | Show Your Work: | Probability of rolling an even number = $\frac{3}{6}$ |
|---|------------------------|---|

Probability of rolling the letter D = $\frac{1}{6}$

$$\frac{3}{6} \times \frac{1}{6} = \frac{3}{36} = \frac{1}{12}$$

| | |
|----------------|---------------------------|
| Answer: | $\frac{1}{12}$ 7.SP.8a |
|----------------|---------------------------|

| | | |
|---|------------------------|--------------------------------|
| 9 | Show Your Work: | $-32x + 48y$ $16(-2x + 3y)$ |
|---|------------------------|--------------------------------|

| | |
|----------------|--------------------------|
| Answer: | $16(-2x + 3y)$ 7.EE.1 |
|----------------|--------------------------|

10 **Show Your Work:** $\frac{84}{84} - \frac{26}{84} = \frac{58}{84}$
 $58 \div 84 = 0.69$

Answer: 0.69

7.NS.2d

11 **Show Your Work:** Grocery Store: $\frac{11.21}{4.5} = \$2.49$ per pound
 Strawberry Farm: $\frac{12.64}{8} = \$1.58$ per pound
 $\$2.49 - \$1.58 = \$0.91$ per pound

Answer: \$0.91 per pound

7.RP.1

12 **Equation:** $c = 0.75t$

Show Your Work: $\$364.50 = 0.75t$
 $486 = t$

Answer: 486 total texts

7.RP.2c

13 **Show Your Work:** $\frac{1}{50} = \frac{6.02}{x}$
 $x = 301$
 $\frac{1}{50} = \frac{3.24}{x}$
 $x = 162$
 $301 \text{ miles} - 162 \text{ miles} = 139 \text{ miles difference}$

Answer: 139 miles difference

7.RP.1

14 **Show Your Work:** $(56.40 + (56.40 \times 0.08625) + 14) \div 4$
 $(56.40 + 4.86 + 14) \div 4$
 $75.26 \div 4$
 $\$18.82$

Answer: \$18.82 per person

7.RP.3

Each part of the Extended-Response Question is worth 1 point.

15 **Show Your Work:** $350 + (6 \times 30) = 350 + 180 = 530$

7.NS.3

Answer: 530 feet above sea level

7.NS.3

16 **Show Your Work:** $530 + (-50 \times 5) = 530 + (-250) = 280$

7.NS.3

Answer: 280 feet above sea level

7.NS.3

17 **Show Your Work:** $\$96.55 \times 0.15 = \14.48

7.NS.3

Answer: \$14.48 saved

7.NS.3

Rehearsal Test 2, Session 1

Multiple-Choice Questions are worth 1 point each.

| Question | Answer | Learning Standard | Question | Answer | Learning Standard |
|----------|--------|-------------------|----------|--------|-------------------|
| 1 | B | 7.EE.1 | 18 | A | 7.EE.1 |
| 2 | D | 7.NS.2b | 19 | C | 7.NS.1b |
| 3 | A | 7.RP.1 | 20 | B | 7.EE.1 |
| 4 | A | 7.NS.3 | 21 | A | 7.EE.1 |
| 5 | C | 7.NS.3 | 22 | C | 7.EE.2 |
| 6 | D | 7.RP.2a | 23 | D | 7.EE.2 |
| 7 | C | 7.EE.4a | 24 | C | 7.NS.3 |
| 8 | C | 7.RP.2b | 25 | A | 7.EE.1 |
| 9 | C | 7.EE.3 | 26 | A | 7.EE.4a |
| 10 | C | 7.RP.2b | 27 | B | 7.SP.8c |
| 11 | B | 7.RP.2d | 28 | B | 7.EE.4a |
| 12 | B | 7.SP.4 | 29 | A | 7.EE.4a |
| 13 | D | 7.RP.2c | 30 | C | 7.RP.1 |
| 14 | C | 7.EE.1 | 31 | A | 7.SP.7b |
| 15 | D | 7.RP.2c | 32 | C | 7.EE.4b |
| 16 | D | 7.G.1 | | | |
| 17 | A | 7.RP.3 | | | |

Rehearsal Test 2, Session 2

Multiple-Choice Questions are worth 1 point each.

| Question | Answer | Learning Standard |
|----------|--------|-------------------|
|----------|--------|-------------------|

| | | |
|---|---|---------|
| 1 | A | 7.EE.3 |
| 2 | C | 7.NS.2d |
| 3 | A | 7.RP.3 |
| 4 | D | 7.G.1 |
| 5 | B | 7.SP.8a |
| 6 | C | 7.G.1 |

Each part of a Short-Response Question is worth 1 point.

| | | |
|---|-------------------|--|
| 7 | Statement: | Possible Answer: There are 16 grams of protein in 4 tablespoons of peanut butter. 7.RP.2d |
|---|-------------------|--|

| | | |
|---|------------------------|--------------------------------|
| 8 | Show Your Work: | $(9x - 4) - (2x + 5) = 7x - 9$ |
| | Answer: | $7x - 9$ 7.EE.1 |

| | | |
|---|------------------------|--|
| 9 | Show Your Work: | $400 - 7x = 337$ Subtract 400 from both sides of the equation. $-7x = -63$ Divide both sides of the equation by -7 . $x = 9$ |
| | Answer: | 9 days 7.NS.3 |

10 **Show Your Work:** $9.75 \div 3 = 3.25$
 $3.25 + 1.5 = 4.75$
 $4.75 \times 4 = 19 \text{ feet}$

Answer: 19 feet
 7.NS.3

11 **Show Your Work:** $(50 \times 16) - (20 \times 7) = p$
 $800 - 140 = p$
 $660 = p$
 7.EE.3

Answer: 660 points
 7.EE.3

12 **Show Your Work:** $37.8 + 4.25 = \frac{1}{5}x$
 $42.05 = \frac{1}{5}x$
 $42.05 \times 5 = x$
 $x = 210.25 \text{ grams}$

Answer: 210.25 grams
 7.NS.3

13 **Show Your Work:** $\text{Alex} = 16.5 \text{ minutes} \div 3 \text{ miles} = 5.5 \text{ minutes per mile}$

Answer: 5.5 minutes per mile
 7.RP.2d

14 **Answer:** $\text{Jay} = 6.2 \text{ minutes per mile} \times 3 \text{ miles} = 18.6 \text{ minutes}$
 $18.6 \text{ minutes} - 16.5 \text{ minutes} = 2.1 \text{ minutes}$

Answer: It will take Jay 2.1 minutes longer to finish the race.
 7.RP.2d

15 **Show Your Work:** $3 \times 2 = 6$

Answer: Six possible combinations could be ordered.

7.SP.8b and 7.SP.8c

16 **Show Your Work:** The probability that you will get a pizza that is deep dish with pepperoni is 1 in 6.

Answer: $\frac{1}{6}$ or 1 in 6

7.SP.8b and 7.SP.8c

17 **Show Your Work:** $\$27.38 \div 365 = 0.075 = 7.5\%$

Answer: 7.5%

7.RP.3

18 **Show Your Work:** $\$115 \times 0.075 = \8.63

Answer: \$8.63

7.RP.3

Each part of the Extended-Response Question is worth 1 point.

19 **Show Your Work:** $20 \text{ miles} \div 2.5 \text{ hours} = 8 \text{ miles per hour}$

Answer: 8 miles per hour

7.RP.2b

20 **Explain:** Andrea would win the race because her rate of 8 miles per hour is faster than Christina's rate of 7.5 miles per hour. Andrea runs at a rate of 0.5 miles per hour faster than Christina.

7.RP.2b