Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_

7.EE.3

\_\_\_\_\_1. David bought a computer that was 20% off the regular price of $1,080. If an 8% sales tax was

 added to the cost of the computer, what was the total price David paid for it? (2013)

A. $302.40 B. $864.00 C. $933.12 D. $1,382.40

\_\_\_\_\_2. Doug earns $10.50 per hour working at a restaurant. On Friday he spent 1 $\frac{3}{4}$ hours cleaning, 2 $\frac{1}{3}$

 hours doing paperwork, and 1 $\frac{5}{12}$ hours serving customers. What were Doug’s earnings? (2014)

A. $46.97 B. $47.25 C. $53.00 D. $57.75

\_\_\_\_\_3. Salid bought 35 feet of window trim at a hardware store. The trim cost $1.75 per foot, including

 sales tax. If Salid paid with a $100.00 bill, how much change should he have received. (2015)

A.$20.00 B. $38.75 C. $61.25 D. $80.00

\_\_\_\_\_4. What is the value of the expression below? (2016) (no calculator)

$$\left(3\frac{1}{2}-9\frac{3}{4}\right)÷(-2.5)$$

A. -2.5 B. -2.3 C. 2.3 D. 2.5

\_\_\_\_\_5. A farm grew 19.8 tons of wheat in 2013. The farm’s wheat output increased by 9.8% from

 2013 to 2014 and by 5.1% from 2014 to 2015. Which expression represents a strategy for

 estimating the total output of wheat, in tons, in 2015? (2018)

1. 20 + 10 + 5 B. 20(10)(5) C. 20 + 1.1 + 1.05 D. 20(1.1)(1.05)

6. Patel bought a model rocket kit from a catalog. The price of the kit was $124.95. The state sales tax of

 7% was added, and then a $10 charge for shipping was added after the sales tax. What was the total

 amount Patel paid, including tax and shipping cost? (2013)

***Show your work.***

 ***Answer*** $***\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

 Patel received an allowance of $15 per week. How many weeks will it take him to purchase

 the kit?

 ***Show your work.***

***Answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** weeks

7. Ms. Donaldson earns $18.80 per hour for the first 40 hours she works in a week. She earns 1$ \frac{1}{2}$ times

 that amount per hour for each hour beyond 40 hours in a week. Last week Ms. Donaldson worked

 45.5 hours. How much money did she earn? (2014)

 ***Show your work.***

 ***Answer*** $ ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

 A health insurance payment of $34.55 was **deducted** from Ms. Donaldson’s earnings for the week.

 After the insurance deduction, payroll taxes equal to 28% of the balance were **deducted**. What was

 the amount that Ms. Donaldson received?

 ***Show your work.***

***Answer*** $ ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

8. A scientist uses a submarine to study ocean life.

• She begins at sea level, which is at an elevation of 0 feet.

• She travels straight down for 90 seconds at a speed of 3.5 feet per second.

• She then travels directly up for 30 seconds at a speed of 2.2 feet per second.

 After this 120-second period, how much time, in seconds, will it take for the scientist to travel back

 to sea level at the submarine’s maximum speed of 4.8 feet per second? Round your answer to the

 nearest tenth of a second. (2015)

 ***Show your work.***

***Answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** seconds

9. Trent is fishing from a pier. (2016)

* The tip of his fishing rod is $53\frac{3}{4}$ feet above the surface of the water.
* The hook on the end of the fishing line is directly below the tip of the fishing rod $12\frac{2}{3}$ feet below the surface of the water.

Trent estimates that the distance between the tip of his fishing rod and the hook is less than 65 feet.

 Is Trent’s estimate reasonable? Explain your answer.

**Answer** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Trent lets his hook drop another 10 inches. What is the distance, in feet, between the tip of the

fishing rod and the hook? Do not round your answer.

 ***Show your work***

10. Find the value of the expression (2017)

 ***Show your work***

$$\frac{5}{(1.5+9.5)}+ \frac{0.4(7+11)}{0.2}$$

**Answer** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. A single gram of a certain metallic substance has 0.52 gram of copper and 0.26 gram of zinc. The

 remaining portion of the substance is nickel. Ben estimated that 0.2 gram of nickel is in 1 gram of

 the substance. He used this to estimate the amount of nickel in 35 grams of the substance. Find the

 result of Ben’s estimation strategy. Then, find the exact amount of nickel in 35 grams of the

 substance. (2017)

 ***Show your work.***

***Ben’s estimate \_\_\_\_\_\_\_\_\_\_\_\_\_\_*** grams

 ***Exact amount \_\_\_\_\_\_\_\_\_\_\_\_\_\_*** grams

12. A museum opened at 8:00 a.m. In the first hour, 350 people purchased admission tickets. In the

 second hour, 20% more people purchased admission tickets than in the first hour. Each admission

 ticket cost $17.50. What was the total amount of money paid for all the tickets purchased in the

 first two hours? (2017)

 ***Show your work***

**Answer** $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. Jennifer has 84.5 yards of fabric to make curtains. She makes 6 identical curtains and has 19.7 yards

 of fabric remaining. How many yards of fabric does Jennifer use per curtain? (2018)

 **Show your work or explain your answer.**

14. Susan buys the items listed below at a grocery store.

2 packages of chicken priced at $12.36 per package

½ pound of broccoli priced at $1.98 per pound

1 gallon of milk priced at $3.49 per gallon

 There is no sales tax on the food she buys. Susan pays for the items and receives $0.80 in change.

 What amount of money does Susan use to pay for the items? (2019)

 ***Show your work***

**Answer** $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. Omar and Caleb each had a repair made on their cars. The initial cost of each repair is $1,000. Omar

 and Caleb each have two coupons. Each of them uses both of his coupons toward the cost of the

 repair. One coupon is for $80 off the repair cost. The other coupon is for 15% off the repair cost.

 Omar and Caleb use their coupons in a different order, as shown below.

* Omar uses the $80 off the repair cost coupon first. He then uses the 15% off the repair cost coupon on the remaining balance.
* Caleb uses the 15% off the repair cost coupon first. He then uses the $80 off the repair cost coupon on the remaining balance.

 Who paid the least amount of money for his car repair and how much less did he pay? (2019)

 ***Show your work***

**Answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** paid $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ less