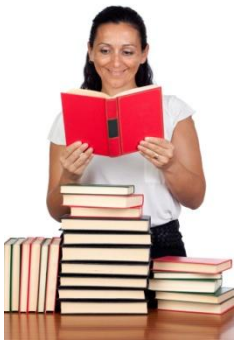
Education and Training
Instructional Practices in Education and Training
Multiple Choice Math Assessment Problems



All math problems address TEKS 130.144. Instructional Practices in Education and Training.

(1) The student explores the teaching and training profession. The student is expected to:

(E) investigate possible career options in the field of education and training.

Question 1. Kenya is working at a community center for her field based internship. She needs 200 hours in one semester. If she only has 16 weeks to complete her internship, how much time does she need to work per day if she can work three days per week?

a. 3 hours 50 minutes
b. 4 hours
c. 4 hours 10 minutes
d. 4 hours 20 minutes

(7) The student understands the relationship between school and society. The student is expected to:

(A) explain the relationship between school and society;

(B) use school and community resources for professional growth; and

(C) use the support of family members, community members, and business and industry to promote learning.

Question 2. A nonprofit early childhood center receives a donation of $20,000 from the local oil company. If they want to use this donation to pay for utilities and their utilities cost an average of $467 per month, how long will this donation last?

a. 2 years 8 months
b. 3 years 6 months
c. 4 years 2 months
d. 5 years 8 months

(1) The student explores the teaching and training profession. The student is expected to:

(E) investigate possible career options in the field of education and training.

Question 3. Nicole has taken an internship that will hopefully lead into a job where she will make $1,500 a month after taxes. She wants to know if this will be enough money for her to pay half of her rent *r* and all of her eating expenses *f*. Which inequality could be used to determine if she has enough money?

a. $r + f < 1500$
b. $r + f > 1500$
c. $\frac{r}{2} + f < 1500$
d. $\frac{r}{2} + f > 1500$

(4) The student plans and develops effective instruction. The student is expected to:

(B) explain the rationale for having a fundamental knowledge of the subject matter in order to plan and prepare effective instruction.

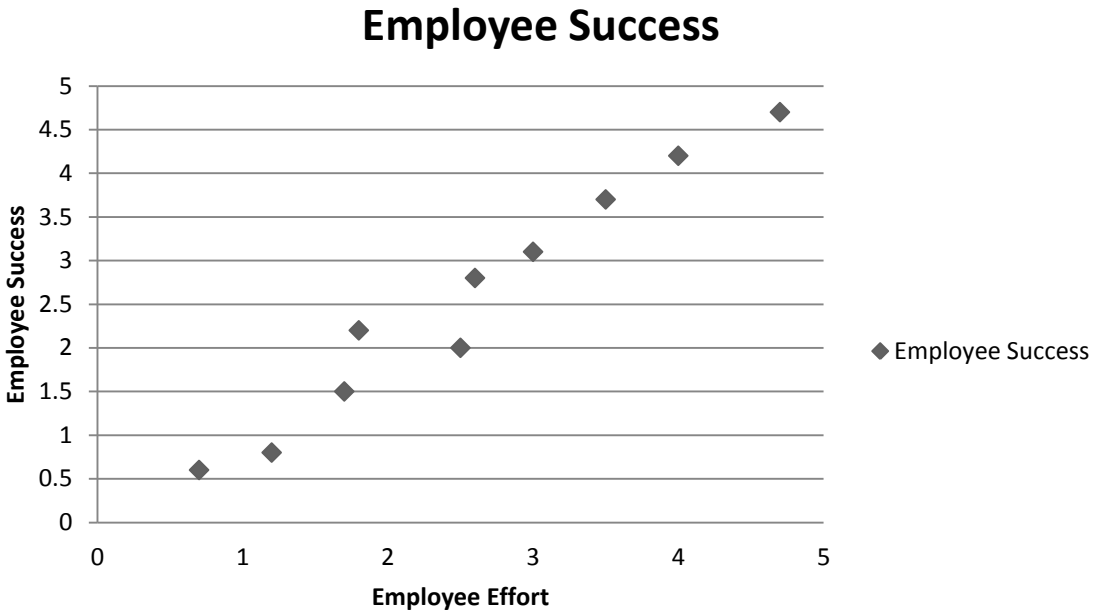
Question 4. Malcolm is going to expand his teacher store business. He is opening a second store and predicts that it will do 30% better than his original store during the first six months. Which equation could be used to find the profit *P* per month of the new location if you know the old store averages *x* profit per month?

a. $P(x) = .30x$
b. $P(x) = .70x$
c. $P(x) = (1 + .30)x$
d. $P(x) = x + 30$

(2) The student understands the learner and the learning process. The student is expected to:

(C) demonstrate behaviors and skills that facilitate the learning process.

Question 5. Analyze the chart below.



The chart above is data taken from a survey given to high school principals and high school employees where employees rated their effort and principals rated the same employees' success. What type of correlation exists?

a. Positive Correlation
b. Negative Correlation
c. No Correlation
d. Constant Correlation

(7) The student understands the relationship between school and society. The student is expected to:

(A) explain the relationship between school and society;

(B) use school and community resources for professional growth; and

(C) use the support of family members, community members, and business and industry to promote learning.

Question 6. The City of Beaumont has a policy that it will build a new community and learning center in a neighborhood when 80% of that neighborhood's population is at or below a certain income level. If the neighborhood currently has 70% at or below that income level and continues toward 80% at a rate of 3% per year, in what month will they reach 80% if it is currently March?

a. May
b. June
c. July
d. August

(5) The student creates an effective learning environment. The student is expected to:

(D) describe conflict-management and mediation techniques supportive of an effective learning environment.

Question 7. The federal government will provide enough funding for one social worker per 1,000 students. If a certain school district has 76,385 students, what would be the actual student to social worker ratio?

a. 1,000:1
b. 1,005:1
c. 1,076:1
d. 76,385:1

(7) The student understands the relationship between school and society. The student is expected to:

(C) use the support of family members, community members, and business and industry to promote learning.

Question 8. A social worker has a caseload of 46 students, and she is supposed to meet for one hour every two weeks with each student. If she works 40 hours per week, what percentage of her time is spent meeting with students?

a. 25.7%
b. 57.5%
c. 76.5%
d. 87%

(3) The student communicates effectively. The student is expected to:

(A) demonstrate effective verbal, non-verbal, written, and electronic communication skills;

(B) communicate effectively in situations with educators and parents or guardians.

Question 9. City Center High School has a goal for 70% of parents to come to open house night this year. Mrs. Smith is the school social worker and calls every one of the school's 859 students. If she was able to talk to 56% and they agreed to attend, how many more parents are needed to meet the goal?

a. 120
b. 279
c. 481
d. 601

(7) The student understands the relationship between school and society. The student is expected to:

(C) use the support of family members, community members, and business and industry to promote learning.

Question 10. Omar is trying to find a place for a homeless student and his family. He knows of an apartment complex that has a sliding scale for rent, *r*, based on the income of the family, *f*, divided by the number of people, *p*, in the family times 20%. Which equation could be used to find rent, *r* ?

a. $r = \frac{p}{f}(.20)$

b. $r = fp(.20)$

c. $r = \frac{f}{20p}$

d. $r = \frac{f}{p}(.20)$

Answer Key

1) C
2) B
3) D
4) C
5) A
6) C
7) B
8) B
9) A
10) D