



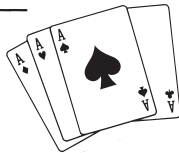
Workout 3

1. _____ % If B is 30% greater than A, and C is 80% greater than A, by what percent is C greater than B? Express your answer as a decimal to the nearest tenth.
2. \$ _____ The record of Mr. Guzzler's gas purchases during a four-week period is given in the table below. What was his average cost per gallon of gasoline purchased during the four-week period? Express your answer to the nearest cent.

	Week 1	Week 2	Week 3	Week 4
Price per Gallon	\$2.99	\$3.09	\$3.29	\$3.59
Number of Gallons Purchased	18	15	12	10

3. _____ N The table shows the corresponding weights of an object on Earth and on the moon. If an object weighs 720 newtons (N) on Earth, how many newtons does it weigh on the moon? Express your answer as a decimal to the nearest tenth.

Weight on Earth (N)	50	100	150	200
Weight on Moon (N)	8.3	16.6	24.9	33.2

4. _____ cu in An open box is constructed from a rectangular sheet of cardboard that measures 12 inches by 18 inches. Square pieces are cut out of the corners so that when the box is formed it will be $\frac{3}{4}$ inches deep. What is the volume of the box? Express your answer as a mixed number.
5. _____ sq inches A rectangular floor measures 3.5 meters by 4.5 meters. If 1 inch = 2.54 cm, what is the area of the floor, in square inches? Express your answer as a decimal to the nearest tenth.
6. _____ liters How many liters of pure water must be evaporated from 60 liters of a 3% salt water solution to produce a solution that will be a 5% salt water solution?
7. _____  A standard deck of 52 playing cards consists of four different suits and 13 cards of different ranks in each suit. Four cards will be drawn at random without replacement from this deck. The probability that the four cards will be all the same suit is k times the probability that they will be all the same rank. What is the value of k ?
8. _____ days It has been calculated that a large swarm of locusts can eat 3,000 tons of food in a single day. How many days would it take a restaurant to make enough quarter-pound hamburger patties (no buns) to feed the swarm of locusts for one day if they can make 100 hamburger patties per minute and they work around the clock? Express your answer to the nearest whole number. Note: 1 ton is equal to 2000 pounds.
9. _____ nickels Paula can have pennies, nickels, dimes and quarters in her purse. The average value of the coins in her purse is 20 cents. If she adds one more quarter to her purse, the average value of all of the coins will be 21 cents. How many nickels does she have in her purse?

10. _____ A right circular cone whose base has a radius of 4 cm and whose height is greater than 2 cm is inscribed in a sphere with a radius of 5 cm, as shown. What is the ratio of the volume of the cone to the volume of the sphere? Express your answer as a common fraction.

